

THE EFFECT OF SOCIAL  
SKILLS TRAINING ON  
SOCIAL ISOLATION AND  
ACHIEVEMENT IN CHILDREN

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ISOLATION AND ACHIEVEMENT IN CHILDREN

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## ABSTRACT

A number of studies have examined the link between social isolation and underachievement in children.

In the present study, after a preliminary check had consolidated the link between the two variables, three main groups were formed from children who scored in the lowest one-third in their class, on a Social Acceptance Sociometric Scale. Thirty-six poorly accepted children were assigned to Social Skills Training Group A, Placebo Attention Group B, and a Waiting List Control Group C. A number of variables such as class, grade, sex, reading achievement and social acceptance. were balanced when forming the groups.

Each child was individually tested, pre-and post-treatment, in Reading Accuracy and Reading Comprehension, and all thirty-six children were post-tested on the same sociometric scale.

It was hypothesised that Treatment Group A would significantly improve in their Social Acceptance by peers, in Reading Accuracy and Comprehension, when compared to the two control groups.

Eight ninety-minute Social Skills Training/Attention Placebo sessions were conducted over a four-week period, for Groups A and B respectively. Post-tests took place two weeks later.

Using Planned Comparisons the mean Gain Scores of all groups were analysed.

Results indicated that Group A improved significantly when compared to Group C on the Social Acceptance variable, but just failed to reach significance when compared to Group B. It should be noted that the pre-test mean of Social Acceptance scores for Group A was considerably higher than for other groups as this variable was the least well matched among the groups. Therefore there must be some degree of caution in interpreting the results.

In Reading Accuracy, Group A improved significantly when compared to both Groups B and C, although Group B showed improvement.

In Reading Comprehension Group A improved significantly when compared to the top Group C but did not differ markedly from the results of Group B. This unclear result is discussed.

It is suggested that Social Skills Training for primary school social isolates can lead to an improvement in both peer acceptance and achievement. Educational implications are discussed. Finally further research directions are proposed.

## ACKNOWLEDGEMENTS

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### Declaration of Sources

The research presented in this Thesis contains no material which has been accepted for the award of any other higher degree or diploma in any university and, to the best of my knowledge, contains no material previously published or written by another person except where due reference is made in the text.

A handwritten signature in cursive script, appearing to read 'Elizabeth Hyslop', written in dark ink.

ELIZABETH HYSLOP

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## 1. BRIEF INTRODUCTION

1.

BRIEF INTRODUCTION

Academic failure is one of the more serious problems confronting educators in schools. Not all failures result from a lack of intellectual ability. Discrepancy between potential and achievement identifies a group of students who are known as underachievers.

The quality of a child's interaction with peers is a significant factor in that child's emotional adjustment. An introductory section outlines some of the correlates and consequences of social isolation. The serious long-term consequences of isolation will also be discussed.

In this study a link is proposed between underachievers and poorly socially accepted children. This link will be supported by a literature review and a minor experimental comparison between the achievement levels of high and low socially accepted children. That this link exists does not exclude other factors such as parent approval and other environmental variables from influencing either variable.

In this study it is intended to train a sample of poorly socially accepted children, using a competent Social Skills Training Manual, and post-treatment, their improvement in both variables of social isolation and achievement will be compared to those of a Placebo Attention Group and a Waiting List group.

Prior to the explanation of the methods employed, social skills and social skill training will be defined and the effectiveness of the latter will be evaluated.

## 2. SOCIAL ISOLATION

### 2.1 DEFINITION OF SOCIAL ISOLATION IN CHILDREN

### 2.2 CONSEQUENCES AND CORRELATES OF SOCIAL ISOLATION

## 2.1 DEFINITION OF SOCIAL ISOLATION IN CHILDREN

Although there is a great deal of interest in socially isolated children, the important issue of definition needs to be resolved. Some investigators have conceptualized the problem of isolation as "social withdrawal", defined as low relative frequencies of peer interaction (for example, O'Connor 1972). Other investigators have conceptualized isolation as low levels of peer acceptance or high levels of peer rejection, using sociometric measures (Gottman, Gonso and Rasmussen, 1975).

It is highly probable that social isolation is not a unitary construct. The differing definitions have produced entirely separate literatures on intervention with social isolates. Efforts to increase the relative frequency of peer interactions with "withdrawn" children have been promising (O'Connor, 1972). However, investigators who have studied low frequencies of peer interactions have failed initially to assess whether a low frequency of peer interaction is a problem which should be remediated. It is not obvious that children should all interact with one another at a specified rate, or that children whose relative frequencies are well below average are somehow at psychiatric risk.

According to Gottman (1977) there is evidence to suggest that children who are rejected, or not accepted by their peers, are at risk and that sociometric measures are predictive of later functioning. This assertion is shared by Cowen, Pederson, Babigian, Izzo and Trost (1973), and Roff, Sells and Golden (1972).

Gottman (1977) attempted a classification of children into five typews using behavioural observations and sociometric data. The five types he defined as (1) sociometric stars, (2) sociometric rejectees, (3) children who had highly negative interactions with the teacher, (4) children who interacted frequently with peers and (5) children who were frequently "tuned out" or off task when alone. He found that the types least accepted by peers and who tended more likely to engage in "hovering" behaviour (a behaviour dimension that seems to be logically related to the concept of unwilling social withdrawal) were the rejected children and the "tuned out" children. These low accepted groups are commonly labelled the "rejected" and the "neglected".

Nominating a child as an isolate is often a subjective and relative judgement. In this study the term is used to describe a child who scores in the lowest one-third in social acceptance within his class, as judged by his peers. It is acknowledged that each child so selected may not be seriously isolated but compared to his highly accepted peers he is relatively socially poorly accepted and isolated, in the direction of being rejected or neglected.

## 2.2 CONSEQUENCES AND CORRELATES OF SOCIAL ISOLATION

A significant factor contributing to the psycho-social adjustment of a child is the quality of his relationships with his peers. Peer relationships are particularly influential during the middle school years when a child devotes a large portion of his school and play time to interactions with similar-aged others (Hartup, 1970a, 1970b; Hetherington & Parke 1975).

In the school setting the isolated child is less likely to be selected or may be overtly rejected as a work or play partner. He is frequently excluded from group situations and his efforts to enter a group may be ignored or rejected. His isolation is not so obvious in the class situation where the teacher may decide group membership, but is readily observable during free or play periods. The child may attempt to hide his/her isolation by finding tasks inside the classroom or library during such periods, or may pass the time walking or sitting alone, watching others interact - often termed "hovering" (Gottman 1977; Ross 1980).

On the basis of a substantial series of studies Bonney (1971) pointed out that the contributions made by a socially isolated child were frequently devalued. Pupils of high prestige would sometimes ignore, or obviously reject the poorly accepted child's contributions. The child's poor personal acceptability throughout the groups casts a negative halo over the child's efforts and the greater visibility at times of contribution worked against the child. It is not surprising that a link exists between social status and achievement levels, whatever the direction of this causal link. This correlation is to be discussed

more fully in a later section (3.1) as it is important to the design of the present study.

For many years the mental health professionals have maintained interest in the long-term consequences of early dysfunction. The belief that such dysfunction may have serious later effects, is central to influential theories of personality development and psychopathology and has been a powerful orienting factor in approaches to clinical practice. According to Gottman, Gonso and Rasmussen (1975), unpopular children are more likely to be disproportionately represented later in life in a community-wide psychiatric register.

Researchers have noted low peer acceptance to be predictive of delinquency in adolescence, for example, Roff, Sells and Golden (1972) studied a sample of 40,000 children in 21 cities. They noted that except for the lowest socioeconomic class the relationship was highly positive between the percentage delinquent and low peer-acceptance scores taken 4 years earlier.

According to Roff (1961), unpopular children are more likely to receive bad-conduct discharges from the armed forces. Further, while not clearly indicative of a causal link, social skill deficits have been implicated in psychopathology such as alcoholism (Marlatt, Kosturn & Lang 1975), sexual deviation (Abel 1976), explosive rage and hyperaggression (Foy, Eisler & Pinkston 1975) and depression (Lewinsohn 1975).



Additional examination of the psychiatric literature underlies the role of social isolation in more serious psychopathology, for example, Kohn and Clausen (1955) reported that the proportion of social isolates in adult manic depressives and schizophrenics was close to 1/3, while in normal control groups the proportion was close to zero (Gottman, Gonso and Rasmussen, 1975). In addition, in a survey of research on suicide and attempted suicide, Stengel (1971) concluded that social isolation is the common denominator of a number of factors correlated with a high suicide rate (Gottman, Gonso and Rasmussen 1975).

In the educational setting, researchers concluded that among a number of variables assessed with third-graders (I.Q., absenteeism, achievement scores, grades, teacher-ratings, peer-rating and self-ratings), the peer ratings of acceptance were the best indicators of later emotional difficulties (Cowen, Pederson, Babigian, Izzo & Trost 1973). It is apparent that successful interactions with peers are intimately related to the child's present and future social-emotional adjustment.

In a classic investigation examining later life events, over a 30 year follow-up period, for a sample of more than 500 subjects seen initially as children in a clinic setting because of early deviant behaviour, Robin (1966) found that there were long-term correlates of early dysfunction, as reported in Gottman, Gonso and Rasmussen, 1975. Clinic-seen children were found, on a variety of measures, to be significantly more maladjusted through adulthood than demographically comparable non-clinic controls.

This finding, while particularly significant for later occurrence of antisocial behaviours, also applied in categories such as psychiatric disease, arrest rates, divorce rates, occupational achievement, hospitalisation and alienation.

On the basis of the literature reviewed this far, it is highly probable that a socially isolated child will experience emotional difficulties during his schooling years and probably will dislike school. The child may underachieve, thereby compounding his maladjustment (see section 3.1). Also, as can be concluded from the studies reviewed in this section, peer popularity is related to indices of later mental health as children who are socially isolated have limited opportunities for social learning. It is now intended to examine briefly some of the behavioural correlates of socially isolated children.

In a study of behavioural observation Putallaz and Gottman (1981) indicated that the behaviour of unpopular children tended to be more negative than that of their popular peers. They tended to disagree more often, and to be less likely to give a reason when criticising a peer, than popular children. Unpopular children also experienced more difficulty in entering groups in that they required more bids, and more time, to gain entry. Furthermore, they were accepted less, and ignored more, by these groups than popular children. The researchers found that unpopular children did use some of the entry bids differently; specifically they were more apt to ask informational questions, to speak about themselves, disagree, and state their feelings and opinions more than popular children. Additional observations

included the facts that unpopular children tried to exert control and divert the group's attention to themselves, rather than to attempt to integrate themselves in the ongoing conversation of the group. They tried to introduce new conversational topics abruptly and direct the conversation to themselves. These entry strategies had a high probability of resulting in the groups ignoring or rejecting them. These findings are consistent with a proposal by Phillips, Shenker and Revitz (1951) that a child's most successful strategy for integration was to first determine the "frame of reference" common to the group members (e.g. activities, goals) and then to establish himself/herself as sharing in this frame of reference. Specifically the child should first attempt to join the group's activity by imitating the actions or words of a child in the nucleus group.

An earlier and somewhat anecdotal study by Bonney (1943) indicated that the behaviours or characteristics that were most important in discriminating between popular and unpopular children, from the standpoint of social acceptance, were "enthusiasm", "personal attractiveness", "friendly", "happy", "frequent laughter", "clever", "grown up" and at ease with adults. Bonney further noticed that these behaviours could be divided into two groups of strong positive characteristics and cheerful, friendly attitudes.

A person's physical attractiveness is one of the first pieces of information which can be obtained about that person even before interaction is initiated. In a study by Dion, Berscheid and Walster (1974), their subjects inferred that attractive persons possessed more socially desirable personalities than unattractive individuals, for example, the former were viewed as friendlier, warmer, more stable and

more sincere. A later study by Dion and Berscheid (1974), on physical attractiveness and peer perception among children concluded that unattractive children were relatively less popular than attractive children.

Ladd and Oden (1979) reported that children who lack knowledge of peer norms or values were found to be less accepted by peers. Hasselt, Hensen and Bellock (1981) quote research by McGraw and Tolburt (1953) where a highly significant correlation was indicated between athletic ability (that is, being expert) and social status in junior high school boys, and suggest that teaching children to be expert softball or basketball players might enhance their social status more than traditional social skills training.

In summary, a review of a wide range of variables related to social isolation indicates that it is correlated to such factors as physical attractiveness and negative behaviours such as being disagreeable and critical and so on; and that social isolation is strongly implicated in relation to a wide range of negative consequences including delinquency and serious psychopathology.

### **3. SOCIAL ISOLATION AND UNDERACHIEVEMENT**

#### **3.1 LINKS BETWEEN SOCIAL ISOLATION AND UNDERACHIEVEMENT**

#### **3.2 SOCIAL ISOLATION AND ACHIEVEMENT IN READING**

### 3.1 LINKS BETWEEN SOCIAL ISOLATION AND UNDERACHIEVEMENT

It has been consistently reported that poor social acceptance by peers is positively correlated to underachievement, as well as to other factors such as emotional maladjustment and poor self-concept (Blechman, McEnroe, Carella & Audette 1986; McConaughy 1986; McMichael 1980, Bryan 1974, 1976; Bruininks 1978a).

This is of importance to educators who need to be concerned for the social status of underachievers, slow learners or learning disabled children and, also, of the mildly mentally retarded who are increasingly being integrated into mainstream schools but may not be socially accepted by their peers. Clearly it is logically possible to argue that providing specialized remedial instruction for the learning difficulties of such children whilst ignoring their problems in interpersonal relationships is inconsistent. Symptoms of maladjustment self evidently interfere, in one way or another, with cognitive and emotional factors promoting learning.

To establish the link between social acceptance and achievement levels many studies in this area will be reviewed.

In a report of the correlates of social status among mainstreamed mildly mentally retarded children Gottlieb, Semmel and Beldman (1978) studied the relative contribution of misbehaviour and academic incompetence of learning disabled children to their poor social status. Both teachers and peers rated the slow learners on the dimensions of misbehaviour and academic performance. Whilst the results indicated that perceived academic incompetence negatively affected learning disabled children's level of social acceptance, their perceived misbehaviour was associated with learning disabled children's active social rejection by peers. Whether learning disabled children are not positively socially accepted or are actively rejected by their peers and for what reasons, that is, misbehaviour or academic incompetence, the result is the same; the affected children are more likely to be socially isolated and forced to spend lonely lunch hours wandering the play grounds watching others play or to cover-up their isolation by sitting in the library.

In a study which reinforces the existence of the link and, also, indicates substantial stability over time and across situations, Bryan (1974) reported an extensive sociometric study of 84 learning disabled children in 62 third, fourth and fifth grade classrooms. The learning disabled children received significantly more votes on a Scale of Social Rejection and given notes on a Scale of Social Attraction than controls. Later, in 1976 in a follow-up study to determine the current peer popularity of the same learning disabled children who had participated in the earlier sociometric study, Bryan's results confirmed his

earlier finding and indicated that there is a reliability of rejection ratings across time and across classrooms, as 75% of the learning disabled children had changed classroom groupings. The sociometric scale utilised required choices to be selected from within each separate classroom. New friendship patterns had been established within each classroom for the new year but it was apparent that learning disabled children do not enhance their social attractiveness given a fresh start in a new school year (Mischel 1968, 1973).

In this state, at primary school level, academic streaming of classes is not a current trend. Increasingly learning disabled students are receiving instruction in regular classrooms. This policy is designed to avoid the stigma of grouping disabled children together and labelling them as such, but discrimination now exists within classrooms where the learning disabled child is not likely to be socially accepted by peers. This problem is a cause of concern for Bruininks (1978a) who explored the peer status, perceived peer status, friendship preferences and interpersonal needs of learning disabled and nondisabled children. Previously Bruininks (1978b) had found that learning disabled children are less accurate than their classmates, in assessing their own status in the group, a factor that may affect adjustment within the peer group (Ausubel, Schiff and Gasser 1952). Bruininks' second study confirmed that learning disabled students were less popular and had poor self concepts than contrast students, and were less accurate than contrast students in assessing their own social



status. They appear, however, to have chosen friends on the same basis as other students. They evidenced the same interpersonal needs for inclusion, affection and control as contrast students but they had a higher need to express control.

Blechman, Tinsley, Carella and McEnroe (1985) examined the relationship between objective measures of childhood competence and behaviour problems in 474 grade two to grade six children. Daily classwork measured academic competence and peer ratings measured social competence. Median splits formed four groups, with competent subjects highest and incompetent subjects lowest on the two dimensions of academic and social competence. It was found that academically incompetent subjects achieved the highest scores on the Behaviour Problem Checklist and the lowest scores on the Harter Competence scores and, also, received more peer nominations of depression on the Peer Nomination Inventory than did control subjects.

In a paper arising from the clinical study of a group of fifth grade children from an urban lower class Negro public elementary school, Hirsch and Costello (1967) reported that one of the major factors which distinguished the group of achievers from the group of underachievers was the quality of interpersonal relationships. The authors commented on the importance of considering this discrepancy in the design of any enrichment programme.

Green, Vosk, Forehand and Beck (1981) examined the differences among thirteen accepted, nine rejected and eleven neglected children identified by sociometric instruments from 105 grade three children. Teachers completed the Connors Teacher

Questionnaire and an estimate of each subject's average peer rating was obtained. Metropolitan Achievement Test Scores for reading, mathematics and language arts were also examined. The results indicated that peer-accepted subjects were viewed by teachers as less hyperactive and less inattentive-passive than rejected subjects, and they also had better academic scores. Peer neglected subjects fell between the accepted and rejected subjects on seven of the eight outcome measures.

In a study of reading difficulties, behavioural adjustment and social status McMichael (1980) studied correlations between these characteristics and also discussed the development of the link. One hundred and ninety-eight boys from lower class backgrounds took part in a longitudinal study covering the first two years of elementary school. The research concerned the effect of reading difficulties and behaviour on peer rejection and popularity. Both popularity and rejection were considered and the study was designed to elucidate the relationships between behaviour, reading ability, social status and home background. The particular issues addressed were a) how rejection is caused; b) whether difficulties in reading are a primary source of rejection and unpopularity of boys aged six and seven years; c) whether lack of popularity and rejection are accounted for by cognitive limitations and unacceptable behaviour; d) whether it is antisocial (externalizing) or neurotic (internalizing) deviance that affects their social status more acutely, if it is their behaviour that is associated with popularity and rejection and e) whether family background factors play an important

part in determining social status.

The results of the above study confirmed that popularity was at risk among boys who exhibited either problem behaviours or reading difficulties by their second year of school, with reading achievement showing a stronger relationship with popularity than behaviour. Reading problems did not seem to be the primary source of rejection and isolation among these boys. Rather, it appears that the association between social status and reading difficulties may be less important than the association between social status and more general cognitive results (expressed in reading readiness results and intelligence test results). What is clear is that difficulties of any kind showed a tendency to affect popularity. Later on, in the primary school years, boys whose learning disabilities initially only limited the number of their friendships may find themselves more often rejected, as there was an increase over the two years of this study in the number of rejection statements based on school incompetencies. McMichael warns that this may indicate a trend that will seriously affect their later social relationships.

It is important to note that McMichael found that poor readers who were stable and conformed to classroom requirements were no more rejected than good readers of equivalent behaviour, however, they were less popular.

Rushton (1966) found that, in a sample of children of age eleven years, stability and good adjustment are positively correlated with academic success. An explanation given is that well adjusted children are not distracted to the same degree by

their personal problems as are poorly adjusted children. He also concedes that an older withdrawn child may achieve to a high standard.

Most researchers are not clear about the direction of effects of achievement and social acceptance. For example, Chazan (1963) pointed out the relationships between the three variables of maladjustment, attainment, and low sociometric status at school, but he did not indicate the direction of effects. Other researchers are also content to establish the link without proving a causal relationship (Ballard-Campbell and Maurine 1984; Clifford 1984; O'Dell 1985; Bursuck 1982; Pope 1983 and Bates 1973).

To reinforce the findings of the reviewed research which establishes a probable link between poor social acceptance and underachievement an initial pre-testing procedure was carried out as part of the present study.

A composite grade five and six class was tested on the Social Acceptance Scale used throughout this study. Children who scored in the top one-third (eight children) and in the lowest one-third (eight children) were further tested individually for reading ability using a Neale Analysis of Reading test. For each subject the chronological age was subtracted from both the Reading Accuracy Age and the Reading Comprehension Age to obtain difference scores.

By the use of Analysis of Variance the highest and lowest Social Acceptance groups were compared for their reading difference scores. The results were significant in the direction of highest

Social Acceptance group achieving more highly in both Reading Accuracy and Comprehension than the lowest Social Acceptance Group.

(Reading Comprehension:  $F = 15.69$   $df = 1,14$ ,  
 $p < 0.05$  ;

Reading Accuracy:  $F = 5.18$   $df = 1,14$   
 $p < 0.05$ ).

Further details of the method and results will be given in the Method and Result sections.

It is clear that the link between the variables Social Isolation and Achievement, is complex and multidetermined and the interaction may vary from individual to individual. None-the-less the literature strongly supports that link.

In conclusion, educators, in designing any enrichment or remedial course for children identified as either maladjusted or learning disabled need to be aware of the link between social acceptance and achievement levels. It is not suggested that in each individual case where a child exhibits a deficit in either academic or social skills the child will inevitably display the other, but the probability is that he will eventually have problems in both areas. A remedial course designed to improve reading skills only of any such child, may only serve to reinforce destructive labels given by peers and further inhibit the child's ability in inter-personal relationships.

### 3.2 SOCIAL ISOLATION AND ACHIEVEMENT IN READING

As it has been proposed that school failure (or in the case of the present study, a failure to achieve potential) and low social acceptance are mutually negatively reinforcing to the child, it is relevant to examine some of the commonly held reasons for underachieving in reading, which are pertinent to this study. Lack of intellectual ability and physical limitations will not be considered as mentally handicapped, visually handicapped or any children with general health problems, have been excluded from this study, upon the nomination of the teachers involved.

The common educational causes of underachieving in reading have been summarised by Wilson (1972). A serious problem involves the process of lockstepping children through the school, that is, all the children in a group learn the same skills at the same time. The children who do not learn in a specified time are labelled as failures either by their teachers, their parents, their peers or themselves. Fortunately this problem is decreasing, but still exists in the beginning stages of reading when children can be arbitrarily judged in reading readiness (Wilson 1972).

Wilson (1972) also reports that instructional techniques are important. In primary grades a child normally has one teacher per year. If that teacher is incompetent, indifferent, poorly educated or insensitive to the children's needs, one year

of exposure to him/her can seriously harm some children.

What is not explained is why most children survive a year of poor teaching without permanent harmful effects, and yet others fall behind in their reading skills. It is possible that the individual's social competence and the level of parent approval that the child experiences, are factors in the ability to 'catch up' next year. Coopersmith (1967) states that children need total, or nearly total, acceptance by their parents to develop as emotionally well adjusted individuals.

Closely related to the problem is the type of teaching method used. It is possible to argue that school systems which impose innovative teaching methods on teachers, not skilled in their use, and not committed to their philosophy can become responsible for their students' learning problems.

Finally, Wilson (1972) notes that when a child experiences long periods of continuous absence, or changes from one school to another, the sequential development of his skills may suffer. It is often difficult for a teacher to provide the individual instruction necessary to counterbalance excessive absences. These absences or changes must necessarily affect the child's interpersonal relationships, hence further affecting the learning rate.

Emotional causes for initial and continuing under-achieving in reading must be stressed. Children who are emotionally disturbed as a result of being raised in emotionally and physically deprived environments can be placed in this category. Research has indicated that such children can be predicted to underachieve in reading (Wattenberg and Clifford 1967).

However, for whatever reason a child fails initially, he is then categorised as being in the "bottom group" for reading. Teachers may attempt to disguise this fact but teachers, peers, and, more importantly, the child will know. Drummond and Wignell (1977) suggest that the child then develops strategies which allow the child to avoid the humiliation of public failure or inferiority but which are, in themselves, barriers to further learning.

Preston (1975) in an investigation involving parental interviews, reports that parents of one hundred poor readers of normal intelligence called their children 'lazy', 'stupid', 'dumb', 'boob', 'dunce', 'simp', 'bonehead', 'big sissy', 'blockhead', 'fool', 'idiot' and 'feeble-minded' (Schubert and Torgerson 1975). It is not difficult to understand why under-achieving readers are emotionally disturbed and why a link between low social acceptance and underachievement is maintained.



It is suggested by Lawrence (1972) that in reading underachievement the child's emotional state, and his relationship with others is his most outstanding handicap to further progress.

In the context of the present study, it is hypothesised that children exhibiting social incompetence will be able to gain support, and social skills through counselling and skill training, thereby lessening their emotional denials and avoidance responses and so be more able to utilize effectively existing learning opportunities.

## 4. SOCIAL SKILLS TRAINING

4.1 DEFINITION OF SOCIAL SKILLS AND SOCIAL SKILLS TRAINING

4.2 DESCRIPTION AND EFFECTIVENESS OF SOCIAL SKILLS TRAINING

#### 4.1 DEFINITION OF SOCIAL SKILLS AND SOCIAL SKILLS TRAINING

Social skills may be defined as those components of social behaviour which are designed to ensure that individuals achieve their desired outcome from a social interaction. Alternatively, social skills may be defined in terms of appropriate behaviour within a particular social situation (Spence 1980). What behaviour is considered to be appropriate will depend on the characteristics of the individual and the situation concerned.

However, a person may have adequate social skills but may still be inadequate in social relationships, for example, a person may evaluate his skills overly negatively and subsequently avoid social situations (Arkowitz 1981). In these cases, a negative set and unrealistic anxiety may lead to avoidance and distress. Such a person should also benefit from social skills training in that the practice of appropriate skills may help to alleviate social anxiety and inadequacy.

A most comprehensive categorization of social skill components in children and adolescents is given by Spence (1980). Social skills can be categorized into small elements and evaluated in terms of non-verbal and verbal components:

- (i) Non-verbal skills concern the communication
  - of information to others without the voice,
  - but relying on other parts of the body - for
  - example, eye contact
  - gestures
  - posture
  - appearance
  - facial expression

- (ii) Verbal skills - these represent aspects of spoken language which play an important role in appropriate social interaction -  
 for example, quality of voice - volume,  
 pitch, rate, clarity  
 amount of speech  
 content of speech - choice  
 of topic, question asking  
 listening skills  
 basic conversation skills  
 complex conversation skills

- (iii) Basic skills - the elements of social behaviour can also be classified in terms of complexity. Basic skills represent the more simple aspects of both verbal and non-verbal social skills -  
 for example, eye contact  
 voice quality  
 gestures  
 smiling

- (iv) Complex skills - these represent the combination of various basic skills in particular social situations -  
 for example, interview skills  
 dealing with teasing  
 dealing with criticism  
 apologizing

(Spence 1980 P.9).

Social skills training can be defined as attempts to provide those people who respond inadequately in social situations with a learning experience designed to teach them important social skills. It has been suggested that these skills can be reviewed in the same way as any other motor skill in that they are learned and can therefore be taught, given appropriate training experiences (Argyle 1972; Argyle, Bryant & Trower 1974).

The basic components of a social skills training package are typically:

- Instructions and Discussion

- Modelling

- Practice and/or Role Play

- Feedback and Social Reinforcement

- Generalization Techniques

(Spence 1980 P.42).

While traditional approaches viewed social behaviour as more a reflection of an individual's personality, there is increasing evidence to suggest the efficacy of social skills training in relation to a wide range of problem behaviours (Hersen & Bellack, 1985; Schwartz & Johnson, 1985).

#### 4.2 DESCRIPTION AND EFFECTIVENESS OF SOCIAL SKILLS TRAINING

The use of group approaches in child therapy has gained much interest and attention in recent years (Frank & Zillbach 1968; Graziano 1970; and McBrien & Nelson 1972). A number of these have focused on increasing children's social acceptance and improving peer relationships (Strain, Shores & Timm 1977; McClure, Chinsby & Larcen 1978; Weissber, Geston, Carnrike, Toro, Rapkin, Davidson & Cowen 1981; Oden & Asher 1975). The present review will encompass both group and individual procedures which have been previously employed in an effort to improve children's social skills. These groups and individual procedures can be categorized into three main therapy approaches: Play Therapy, Verbal Counselling and Behaviour Modification.

##### PLAY THERAPY APPROACHES

Play therapy groups tend to focus on the children's use of games and play materials during therapy sessions. Typically the therapist does not actively attempt to direct or regulate the children's activities. The therapist's role is to observe closely the ongoing social interactions and play, and to comment aloud on the feelings which the children appear to display. Behaviour change is effected by the children's expression and resolution of personal conflicts during play (Muro 1968).

Research on the efficacy of this approach has been equivocal. Some evidence indicates that play therapy may improve children's peer relationships. In one study, Cox (1953) found positive changes in sociometric status for a group of children between five and

thirteen years of age who were exposed to play therapy in comparison with a no treatment control group. The second graders in a study by Thombs and Muro (1973) also demonstrated increased peer acceptance following participation in play-therapy session, although their gains were not appreciably different from students exposed to verbal group counselling. However, other research questions the efficacy of a play therapy approach.

In contrast to the above study, McBrien and Nelson (1972), failed to detect any social improvement in children who participated in play groups. In fact, these students lagged behind control subjects who had received no training.

Also, Schiffer (1966) examined the effectiveness of a group play-therapy with male clinic patients between the ages of nine and eleven years. The children were assigned to either play therapy groups, placebo groups or to a waiting list control group. Treatment subjects did not demonstrate any improvement in social acceptance from peers or in classroom social behaviour. In the light of these discrepant findings it is difficult to adequately evaluate the effectiveness of a play-therapy approach for improving a child's social interactions with peers.

Aside from equivocal research support, it is possible that play-therapy approaches are of limited utility for intervention with problem children due to the vague and non-specific nature of this therapy procedure. Besides increasing the child's interactions with selected peers, it is not clear what play therapy has to offer.

Unless the techniques and concepts are more clearly delineated the usefulness of a play therapy approach for improving peer relations will continue in doubt.

#### VERBAL COUNSELLING APPROACHES

A second main approach to social skills training with children has been verbally oriented group therapy. This therapeutic modality focuses on discussions of the children's problems, with feedback and suggestions for change offered by group leaders. Verbal approaches resemble the "client-centred" or "insight-oriented" therapies commonly employed with adults (Slavson & Schiffer 1974). However, results of outcome research on verbal counselling tend to be inconsistent.

On the positive side, Crow (1971) found verbal counselling to be an effective treatment approach. This author focused on sixth graders who were low on measures of peer acceptance in order to evaluate the utility of three group-counselling techniques. Although all three techniques involved verbal discussions in groups, one group additionally employed audiotape stories and another used situational pictures to facilitate and direct group discussions. The third group was not provided with any specific structural techniques. The findings indicate that all three counselling groups improved in sociometric status and self-concept when compared to no-treatment controls, although there was no difference between the three types of counselling groups. Perhaps the factor of the effectiveness of the counsellor involved was more powerful than the difference between the techniques employed.



Verbal counselling has also been effective with fifth and six graders who received low sociometric scores. Overall, students who received individual or group counselling improved in social status relative to the no-treatment controls but improvement varied according to the effectiveness of individual counsellors (Bevins 1970).

Studies by Biasco (1966) and by Hansen, Niland and Zani (1969) present even less encouraging evidence for the use of verbal therapy approaches for enhancing a child's interactions with peers.

In conclusion, it appears that empirical support for the use of verbal counselling techniques with low-accepted children is not clear. The specific component and procedures have not been well-defined.

#### BEHAVIOURALLY ORIENTED APPROACHES

Recently, researchers concerned with improving young children's peer relationships have devised behaviourally-oriented programmes for modifying children's social skills. These treatment programmes have employed contingent reinforcement, modelling and/or coaching procedures to train or facilitate adaptive social behaviours. Investigators employing contingent reinforcement procedures have provided praise and rewards to children contingent upon their social or play activities with peers (Hart, Reynolds, Baer, Brawley and Harris 1968). Modelling approaches have been typified by the works of O'Connor (1969, 1972), Keller and Carlson (1974) and Walker and Hops (1973), where treatment consisted of children viewing modelling tapes of children interacting with peers. Coaching or instructing

children on how to interact with peers, has also been incorporated into treatment programmes (Gottman, Gonso and Schuler 1976).

Behavioural approaches to social intervention are particularly interesting since the specific strategies and procedures for intervention with troubled children are explicitly detailed and, therefore, amenable to systematic evaluation. Behavioural techniques can also be easily adapted to applied clinical settings. Moreover, evidence suggests that behavioural approaches to group treatment with children are more effective than therapies discussed earlier (Abramowitz 1976).

Several authors have successfully employed a "skill-training" orientation with socially isolated children (Cooke and Apolloni 1976; Evers and Schwarz 1973; Keller and Carlson 1974; O'Connor 1969, 1972; Ross, Ross and Evans 1971; Walker and Hops 1973). Skills training generally refers to teaching children specific behaviours to use in their interactions with peers. These investigations suggest that the frequency of a child's peer interactions (Keller and Carlson 1974; O'Connor 1972) and other positive social behaviours such as smiling and sharing toys (Cooke and Apolloni 1976) may be successfully increased in socially isolated children. One study employed practice sessions, that is, behavioural rehearsal, for the newly learned social skills (Ross, Ross and Evans 1971).

Despite these positive results some criticisms should be noted. Some of the studies (Ross et al., 1971) presented only case study data to support their treatment programme. Also, almost all of the above studies have dealt with preschool populations and it is not certain that their results are meaningful for older children.

as well. It is likely that the social situations encountered by primary school children may be considerably more complex and demanding than those faced by a typical preschooler and, therefore, it may be more difficult to train skills with older children. Thirdly, the investigators have relied solely on measures of frequency of positive social behaviours to identify socially troubled children (Cooke and Apolloni 1976; Evers and Schwarz 1973; Keller and Carlson 1974). While these studies did demonstrate increases in the frequency of certain social behaviours, it is not clear that these changes had any impact on the children's peer relationships, nor that the children in their studies were indeed "problem" children. It cannot be determined from behavioural data alone whether low levels of social interaction are indicative of poor peer relations, since well-liked children sometimes display low frequencies of social interactions and these children do not pose any social problems (Gottman 1977). Therefore, it would be advantageous to include measures of social acceptance, such as sociometric ratings, during the screening and assessment phases of skills training programmes.

Some studies have focused specifically on primary school children and have used sociometric assessment techniques (Gottman, Gonso & Schuler 1976; Oden & Asher 1977; La Greca & Santogrossi 1980).

In the Gottman et al. (1976) study, two third grade females were trained in three skill areas, initiating entry into groups of children, a step-by-step procedure on how to make friends and basic communication skills. The girls were

individually coached by the main experimenter on the three skill areas, and were asked to rehearse and practise these skills with other classmates. Sociometric ratings administered pre-and post-training indicated that one girl made significant gains in peer acceptance while marginal improvements were discerned for the other student. Although these results are promising, the small sample size and the modest changes in peer acceptance limit the generality of the findings.

Research conducted by Oden and Asher (1977), involved third and fourth grade students who were individually coached, prior to play sessions with peers, on four social-play behaviours. These behaviours included: participation in game activities, co-operative play, talking to peers, and giving attention and encouragement to peers. After the play sessions the children joined the experimenter in evaluative discussions and suggestions for improvement were offered. A second group of children were exposed to brief peer-play sessions without the coaching, and control subjects received no treatment. All the subjects were administered sociometric assessments for work and play situations prior to training and, again, after the four week training programme was terminated. The sociometric assessment used in this Oden and Asher (1977) study were employed in the present investigation.

Relative to control and peer-play subjects, the coached subjects demonstrated gains in peer acceptance in play situations and these changes were maintained at one-year follow up. No

significant improvements were noted in peer acceptance for work situations, and there were no changes evident in the coached students' actual social behaviours. Although this study does provide very positive support for the use of coaching procedures, the findings also suggest that their training should not be restricted to play situations.

Finally, a behaviourally oriented programme for training groups of children in social skills was formulated and evaluated (La Greca and Santogrossi, 1980). The eight skill areas defined for training included smiling, greeting, joining, inviting, conversing, sharing and co-operating complimenting and grooming. Treatment consisted of modelling, coaching and behavioural rehearsing. Thirty children, grades three to five, were selected on the basis of low peer acceptance ratings and were assigned to skills training, attention placebo or waiting list control groups. Measures included a role play of peer interactions, classroom observations of interactions, assessment of social skills knowledge, and peer ratings. Relative to children in the attention placebo and the waiting list control groups, social skills group children demonstrated increased skill in a role play situation, a greater verbal knowledge of how to interact with peers, and more initiation of peer interactions in school. These results lend support to the efficacy of group social skills training for improving a child's social behaviour with peers.

In this present study, the social skills package, as developed by La Greca and Santogrossi (1980), will be employed, in addition to a minor introductory component involving a verbal counselling approach. The beginning section of each session will consist of discussion of problems and eliciting of feelings involved but will not involve any suggestions for change. It is hoped that this additional component will help to promote an empathic bond and allow for trusting relationships to develop between the experimenter and the children involved. Further details of the package employed will be given in the Method and Appendices.

## 5. THE AIMS OF THE PRESENT STUDY

## 5. THE AIMS OF THE PRESENT STUDY

The acknowledgement of underachievement in children is increasingly being treated as a growing and important problem. In addition, children who are not well accepted by their peers demonstrate a range of negative consequences, including underachieving. Educators are aware that some individuals who are capable of making significant contributions to society are, in fact, not doing so.

Research has shown that the underachieving reader comes to the learning situation poorly motivated. Apart from the adoption of a generally encouraging attitude there is rarely a systematic attempt on the part of the teacher, to improve a child's level of motivation. Remedial instruction alone, has not proved to be the complete answer, particularly in relation to boys, where the main problem of underachieving exists (Drummond & Wignell 1977).

The present research is based on the premise that more attention should be allotted to the child's emotional adjustment, in addition to his/her cognitive processes.

If poorly accepted children can be trained to lessen their social deficits, they may come to the learning situation with increased motivation, may be less easily distracted, and, therefore, better able to learn from, and with, peers. Early intervention may help to prevent the more serious emotional maladjustment and psychiatric consequences, which may occur in later life, as discussed in earlier sections; but such long term results are clearly beyond the scope of the present study.



As associated problems of behaviour and peer status tend to increase in frequency with under-achieving children, a circular process is possible with both school failure and poor social acceptance being mutually non-reinforcing to the under-achieving child.

Therefore, in the present study, an attempt will be made to enhance the peer social acceptance of children, from grades three through to grade six, who have been nominated by peers as poorly accepted. The experimenter is interested in the effect of social skills training on achievement in reading. The Treatment Groups will receive training in Social Skills; the Attention Placebo Groups will be given a similar set of expectations and equal attention but not in peer-oriented situations, and the Waiting List Control Groups will participate in pre- and post-testing only.

It is hypothesised that the Social Skills Treatment Group will show a greater improvement in the variables of Social Acceptance, Reading Accuracy and Reading Achievement than the two control groups (for statement of hypotheses, see Method).

## 6. METHOD

### 6.1 SUBJECTS

### 6.2 MEASURES AND EQUIPMENT

### 6.3 DESIGN

### 6.4 PROCEDURE

## 6.1 SUBJECTS

The subjects selected for this study were drawn from four primary school classes, grade three to six. Three of these classes are composite classes. The primary school is situated in a middle to upper middle class socioeconomic area.

The 108 boys and girls were administered two roster and rating sociometric scales of Social Acceptance. The scales ask each child to consider how much he/she would like to work with, and, secondly, to play with each other child in the class, and to rate the preference on a five-point scale from "I like very much" (score of five) to "not at all" (score of one). A copy of each scale is included in the appendix (A.1. A.2.).

For each individual within a class it was possible to obtain a Social Acceptance Score by adding the rating score by each child in the class on each scale and then adding the sum of the scores together for each individual.

The children falling within the lowest one third in Social Acceptance Scores within each class were chosen as subjects, 36 in all.

Each subject was also individually tested with a Neale Analysis of Reading Ability, Form A (Neale 1966; see Appendix B) and both a Reading Accuracy Age and a Reading Comprehension Age were obtained for each child. The results of this pre-testing are given in Appendix C.

The 36 subjects were assigned to one of three groups of 12 members each to balance certain variables, the most important of which were considered to be the sex, grade (thereby also considering chronological age), and the number of children from each class to allow for individual differences in classroom instruction and attitude. Scores on the Social Acceptance Scales and results of Reading Accuracy and Reading Comprehension Tests were also considered but compromises had to be made as it is, realistically, not possible to balance so many variables.

The defining characteristics of each group are given in Table 1.

Within one class, a composite grade five/six, the children with Social Acceptance Scores falling within the top one third in the class were also administered the Neale Analysis of Reading Ability Test. Their Reading Achievement results will be statistically compared to those children with the low Social Acceptance Scores, within that class as a check on the link between achievement and social acceptance.

The high scoring group is labelled X, and the low scoring group labelled Y. The scores are recorded in Appendix D.

TABLE 1

Defining characteristics of treatment group A and control groups B and C.

	A  Social Skills Treatment Group	B  Attention Placebo Control Group	C  Waiting List Control Group
No. of Males No. of Females	5 7	5 7	6 6
Mean Chronological Age	10.26	10.3	10.41
Grade 3 Grade 4 Grade 5 Grade 6	2 3 3 4	2 4 3 3	2 3 3 4
Class 3/4 Class 4/5 Class 5/6 Class 6	3 3 3 3	3 3 3 3	3 3 3 3
Mean Reading Accuracy Age	10.17	10	9.58
Mean Reading Comprehension Age	9.7	9.46	9.57
Mean Social Acceptance Score	153.33	132.33	129.25

## 6.2 MEASURES AND EQUIPMENT

1. Neale Analysis of Reading Ability, Forms A and B (Neale 1966) which is an individual test that assesses both reading comprehension and accuracy and results in a Reading Accuracy Age and Reading Comprehension Age for each subject tested.
2. Roster and Rating Sociometric Scales for assessing Social Acceptance by peers were used. This is a group test administered by the experimenter. The children were administered a sheet of paper with each classmate's name listed in random order. The page was headed by the question, "How much do you like to play with this person in school?". The children rated each of their classmates by circling the appropriate face, from smile to frown; a smile indicating, "I like very much" and scoring five points and a frown indicating, "not at all" and scoring one point. A five-point scale was used to allow for a range of responses. When all the papers were collected, the children rated each of their classmates in response to the question, "How much do you like to work with this person at school?". These scales were devised and validated by Oden and Asher (1975) and employed by La Greca (1980) in a competent study.

In designing this study many methods to assess the quality of social interaction were considered (e.g. behavioural observation of the frequency and quality of interaction teacher reports and peer nominations). Behavioural observations were rejected on logistical grounds including (1) the time and effort involved in achieving adequate inter rater reliability with trained, matched, independent, blind raters, and (2) the time and effort involved in undertaking time-sampled observation of 108 children. Furthermore, the behavioural approach was not employed because of continuing controversy over the most reliable method of observation, that is, whether it is more effective to observe children at play, in role-play or whether to count the number of interactions, or the type of interaction such as smiling (Arkowitz, 1981).

According to Anastasi (1982) peer sociometric nominations have generally proved to be one of the most dependable of rating techniques. Such ratings have been found to have good predictive value. She states that an individual's peers are often in a particularly favourable position to observe a child's typical behaviour. Therefore, they may be better judges of certain interpersonal behaviours than teachers or other outside observers. Most important is that the opinion of group members right or wrong, influence their actions and hence partly determine the nature of the individual's subsequent interactions with the group.

Finally, sociometric measures have been employed in many tightly controlled and respected studies (Dion & Berscheid, 1974; Gottman, 1977; Ladd & Oden, 1979; La Greca & Santogrossi, 1980; Oden & Asher 1977; Putaliez & Gottman, 1981; Singleton & Asher 1977; & Van Hasselt, Hersen, & Bellack, 1981).

As an indication that behavioural observation and sociometric instruments are measuring the same variable, a study by Hartup, Glazer and Charlesworth (1967) is worth reviewing. The researchers observed nursery school children in the classroom and categorised social behaviour as positive or negative. The category of positive behaviour included giving attention and approval, giving affection and personal acceptance, submitting to another's wishes and giving things to another. Negative behaviour included non-compliance, interference, derogation and attack. Using a sociometric instrument in two nursery school classes, these researchers concluded that positive behaviours related to acceptance scores in both classrooms.

It was decided that a sociometric scale, assessing peer social acceptance, would be suited to the design and scope of the present study.



3. Video cameras and monitors were used in filming modelling tapes and in training sessions. These tapes were made at the school by the experimenter and the school principal, using children nominated as popular by the principal.
4. Homework sheets were devised in order to facilitate the subject's practice of the social skills taught in training sessions. As an example, a homework sheet may request a subject to smile at a boy or girl in the class at least two times each day for the next week, and to record this information, in order to practise the social skill component of smiling behaviour.
5. A Social Skills Training Package (as devised by La Greca 1980) was used. This package is described in the Procedures section (6.4) and examples are given in Appendix E.

### 6.3 DESIGN

The Reading Achievement Scores of the High and Low Social Acceptance Groups (groups X and Y, respectively) will be compared by means of Planned Comparisons (F Tests).

At the beginning of the treatment phase, the three groups were randomly nominated as Social Skills Treatment Group A, Attention Placebo Control Group B and Waiting List Control Group C.

The initial research hypothesis is:

That there will be a significant difference between the achievement levels of highest and lowest scores on a Social Acceptance Scale.

The main hypotheses are:

1. That Treatment Group A will show significantly greater improvement than Control Groups B and C, as measured by a pre-and post-treatment Social Acceptance Scale score.
2. That Treatment Group A will show significantly greater improvement than Control Groups B and C, as measured by a pre-and post-treatment test of Reading Comprehension.
3. That Treatment Group A will show significantly greater improvement than Control Groups B and C, as measured by a pre-and post-treatment test of Reading Accuracy.

The statistical tests selected to analyse the results are Planned Comparisons (F Tests) to test the specific prior hypotheses. The Dependent Variables are the Gain Scores, that is, Post-test result minus the Pre-test results for Social Acceptance Reading Comprehension and Reading Accuracy. Gain Scores will be used to avoid the assumptions involved in analysis of covariance (Winer, 1962, p. 752 - 753, p. 764 - 765).

#### 6.4 PROCEDURE

The experimenter administered the Social Acceptance Scales, to the classes involved, two weeks before the training sessions were commenced and two weeks following their completion. The subjects were assigned to groups by the experimenter (as outlined in Section 6.1), but at this stage were not familiar to the experimenter as individuals.

An independent trained teacher pre-and post-tested the subjects in Reading Achievement but was unaware of their group placement.

The design is open to the criticism of bias in that the experimenter conducted both the Social Skills training sessions and the Attention Placebo Control Group sessions, and therefore, could have favoured one group over the other. Never-the-less, the experimenter went to considerable effort to standardise treatment variables such as the training procedures, the order and time involved in sessions, the introduction to the training and also the same rationale was explained to each group. Furthermore, it was considered sensible to employ only one experimenter in order to exclude the variable of differing trainers' skills and attitudes if a number of trainers had been employed.

To control the attention factor, both Treatment Group A and Attention Placebo Group B sessions were held in two ninety minute blocks per week for four weeks.

An outline of procedure for both Group A and B will follow. To standardise the children's expectancies for the group, the introductory procedures of the first group's meeting were identical for both Group A and B. During the initial meeting, all children were informed that the purpose of the groups was to learn better ways of playing and working with others. The experimental procedures (e.g. viewing videotapes, role playing etc.) were also explained.

The content of the training procedures were adapted from those developed by La Greca (1980) which is a clearly effective training package. Her results indicated that social skills treatment group children demonstrated increased skill in a role play situation, a greater verbal knowledge of how to interact with peers and more initiation of peer interactions in school than children placed in the two control groups.

Eight skill areas were selected for training for children in Treatment Group A. These included smiling/laughing, greeting others, joining ongoing activities, extending invitations, conversational skills, sharing and co-operation, verbal complimenting and physical appearance/grooming. Two skills areas were trained each week.

The main treatment procedures were modelling, coaching and behavioural rehearsing with videotaped feedback.

These procedures were included within each treatment session in the following manner. For each of the eight skill areas children viewed videotapes of peer models demonstrating the skill and then discussed the videotape and how they might use the skill in their daily activities with peers.

The next procedure involved coaching the children in their use of the skills and providing opportunities to rehearse the skills in role-playing situations. In an effort to promote generalization, role-playing situations were based on real life experiences children reported encountering (e.g. joining games at recess). The children practised the skill with each other while receiving coaching suggestions from the experimenter. This role-playing was videotaped and the children were given immediate feedback on their performance, with suggestions for improvement. The children were also encouraged to evaluate their own performance by pointing out the positive behaviours in need of improvement.

Finally, to encourage the children to use the skills with their peers, the children were given homework assignments that focused on practising the social skills with peers outside the group meetings (e.g. "Greet a classmate at least once each day for the next week"). These assignments were reviewed at the beginning of the subsequent group meeting, in that each subject was asked, in turn, to report on the success and frequency of practice of the skill involved (for further details of a sample session see Appendix E.

In the Attention Placebo Group B the training procedures were identical to those described above (e.g. viewing videotapes, role playing etc.). However, these children received no instruction on social skills, nor were there any discussions of peer interactions. Instead of social skills training, this Attention Placebo group viewed

eight control tapes (e.g. excerpts from television shows) equal in length to the modelling tapes, role played "pretend" games and received homework assignments (for a sample see Appendix F.).

The Waiting List Control Group children only participated in the pre- and post-treatment assessments. No training was provided although the students were given an opportunity to participate in social skills training at the termination of the project as were the children in the Attention Placebo Group.

## 7. RESULTS

### 7.1 HIGHEST AND LOWEST SOCIAL ACCEPTANCE GROUP RESULTS

### 7.2 RESULTS OF THE MAIN STUDY



## 7. RESULTS

The results will be presented in the following order:

Firstly, the initial check comparison between the Highest Social Acceptance Group X, and the Lowest Social Acceptance Group Y on Reading Accuracy and Comprehension, to consolidate the link between the variable Social Acceptance and Achievement.

Next, the results of the major study will be presented in the order of Social Acceptance, Reading Accuracy and Reading Comprehension Gains among the Social Skills Treatment Group A, the Attention Placebo Control Group B, and the Waiting List Control Group C.

The results have been analysed using Planned Comparisons (F Tests) to compare mean Gain Scores of the groups (Robinson 1976, p. 197-200). Gain scores were used to avoid the assumptions involved in Analysis of Covariance (Winer 1962, p. 752-753, 764-765).

The five percent significance level was used despite performing eight tests in all in the two experiments because of the relatively small number of subjects in the groups. The limitation was due to testing time per subject and difficulties in access to a larger group of subjects.

### 7.1 HIGHEST AND LOWEST SOCIAL ACCEPTANCE GROUPS RESULTS

The raw test scores of the Highest Social Acceptance Group X, and the Lowest Social Acceptance Group Y, are presented in Appendix D (Tables D.1., D.2.).

The difference scores (i.e. Reading Accuracy Age minus Chronological Age, and Reading Comprehension Age minus Chronological Age) for each subject in Groups X and Y are given in Appendix D (Tables D.3, D.4.).

The means of the Chronological Age, Social Acceptance Scores, Reading Accuracy Age, Reading Comprehension Age, the Difference Scores for Groups X and Y are given in Table 2.

By the use of Analysis of Variance it was found that there was a significant difference at the five percent level between the Highest Social Acceptance Group X and the Lowest Social Acceptance Group Y in Reading Accuracy, in the direction of Group X having the higher mean Reading Accuracy Ages, that is,  
 $F = 5.18, df = 1, 14, p < 0.05.$

Similarly, it was found that there was a significant difference, at the five percent level, between the Highest Social Acceptance Group X and the Lowest Social Acceptance Group Y, in Reading Comprehension, in the direction of Group X having the higher mean Reading Comprehension Ages, that is,  
 $F = 15.69, df = 1, 14, p < 0.05.$

TABLE 2.

Means of the Chronological Age, Social Acceptance Scores Reading Accuracy Age, Reading Comprehension Age and Difference Scores for Highest Social Acceptance Group X and Lowest Social Acceptance Group Y.

	GROUP X	GROUP Y
Number in Group	8	8
Mean Chronological Age	11.44	11.33
Mean Social Acceptance Score	193.5	98.75
Mean Reading Accuracy Age	11.99	10.5
Mean Reading Comprehension Age	11.94	9.96
Mean Difference Score (Accuracy Age - Chronological Age)	+0.55	-0.85
Mean Difference Score (Comprehension Age- Chronological Age)	+0.5	-1.36

## 7.2 RESULTS OF THE MAJOR STUDY

The raw pre-and post-test scores of the Social Skills Training Group A, the Attention Placebo Control Group B, and the Waiting List Control Group C, in Social Acceptance, Reading Accuracy and Comprehension and Chronological Ages are given in Appendix C (Tables C.1., D.2. & C.3.).

The Difference Scores, (i.e. Reading Accuracy Age minus Chronological Age, and Reading Comprehension Age minus Chronological Age) for each subject, in Groups A, B and C, in both pre-and post-testing are given in Appendix C (Tables C.4., C.5. & C.6.).

The Gain Scores (i.e. the Post-Difference Scores minus the Pre-Difference Scores) in Social Acceptance, Reading Accuracy and Reading Comprehension are also included in Appendix C (Tables C.4., C.5. & C.6.).

Between the pre-testing and post-testing two months elapsed, and, therefore, the Chronological Age of each subject has been advanced by that time period when considering post-training improvement scores.

The means of the Chronological Age, pre-and post-test Social Acceptance Scores, pre and post-test Reading Accuracy and Comprehension Ages for Groups A, B and C are given in Table 3.

The means of the pre and post-test Difference Scores in Reading Comprehension (Reading Comprehension Age minus Chronological Age), and Accuracy (Reading Accuracy Age minus Chronological Age) for Groups A, B and C are given in Table 4. Also included in Table 4 are the means of the pre and post-test Gain Scores in Social Acceptance, Reading Accuracy and Comprehension for Groups A, B and C.

TABLE 3.

The means of the Chronological Age pre- and post-test Social Acceptance Scores, pre- and post-test Reading Accuracy and Comprehension Ages for Groups A, B and C.

		GROUPS		
		Treatment Group A	Attention Placebo Control Group B	Waiting List Control Group C
Number of CHN		12	12	12
Mean C.A.		10.26	10.3	10.41
Mean Social Acceptance Score	Pre-Test	151.17	131.18	129.17
	Post-Test	153.33	132.33	129.25
Mean Reading Accuracy Age	Pre-Test	10.12	10.0	9.58
	Post-Test	10.39	10.27	9.76
Mean Reading Comprehension Age	Pre-Test	9.7	9.46	9.57
	Post-Test	10.04	9.79	9.75

TABLE 4.

1. The means of the pre- and post-test Difference Scores, in Reading Accuracy (R.A.) and Comprehension (R.C.) for Groups A, B and C.

2. The means of the pre- and post-test Gain Scores in Social Acceptance (S.A.), Reading Accuracy (R.A.) and Comprehension (R.C.) for Groups A, B and C.

		GROUPS		
		Treatment Group A	Attention Placebo Group B	Waiting List Group C
Mean Difference Score. Reading Accuracy Age - C.A.	Pre-Test	-0.14	-0.3	-0.83
	Post-Test	+0.03	-0.24	-0.85
Mean Difference Score. Reading Comprehension Age - C.A.	Pre-Test	-0.56	-0.84	-0.84
	Post-Test	-0.42	-0.69	-0.83
Mean Post-Pre Gain Scores	S.A.	2.17	0.5	0.08
	R.A.	0.17	0.06	-0.02
	R.C.	0.13	0.15	0.01

## RESULTS OF ANALYSES

### Social Acceptance Gain Results

By use of Planned Comparison (F. Test) the three groups were compared for gains in Social Acceptance. The means presented in Table 4 are Treatment Group A, 2.17; control Group B, 0.5; and Control Group C, 0.08.

Figure 1 shows the improvement in mean pre and post-test Social Acceptance Scores for Groups A, B, and C.

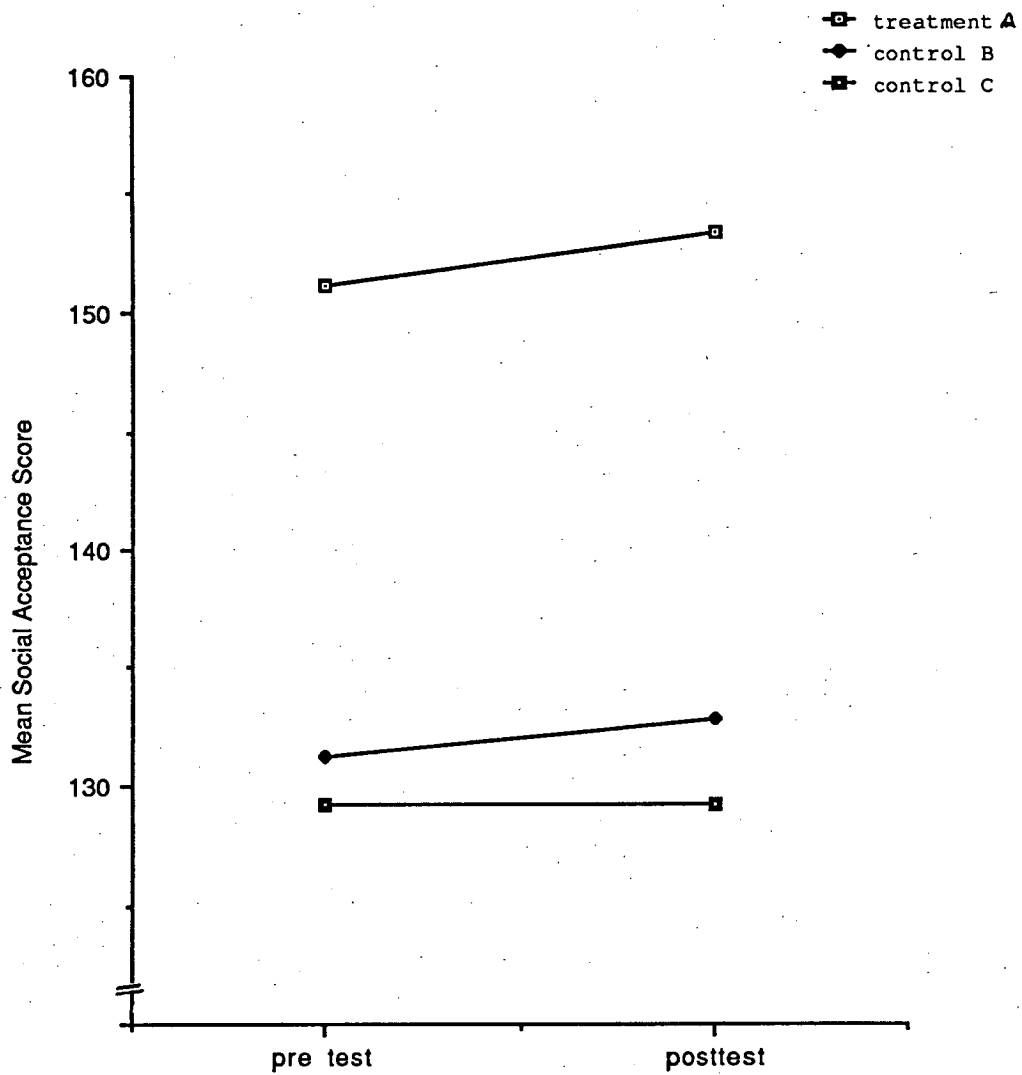


Figure 1: Mean improvement in pre-and post-test social acceptance scores for groups A,B and C



By the use of Planned Comparison (F Test) the difference in Gain Scores in Social Acceptance was not significant between Treatment Group A and Attention Placebo Group B, with

$$F = 3.54, \text{ df } 1,33, p>0.05$$

By the use of Planned Comparison (F Test) the difference in Gain Scores in Social Acceptance was significant, at the five percent level, between Treatment Group A, and Waiting List Control Group C, with

$$F = 5.52, \text{ df } 1,33, p<0.05$$

#### Reading Accuracy Gain Results

By the use of Planned Comparison (F Test) the groups were compared for gains in Reading Accuracy. The means of Gain Scores presented in Table 4, are

Treatment Group A, 0.17;

Control Group B, 0.06; and

Control Group C, -0.02.

Figure 2 shows the mean improvement in pre and post-test Reading Accuracy Difference Scores (Reading Accuracy Age minus Chronological Age) for Groups A, B and C.

By the use of Planned Comparison (F Test) the difference in Gain Scores in Reading Accuracy was significant, at the five percent level, between Social Skills Treatment Group A and Attention Placebo Control Group B with

$$F = 5.30, \text{ df } 1,33, p<0.05$$

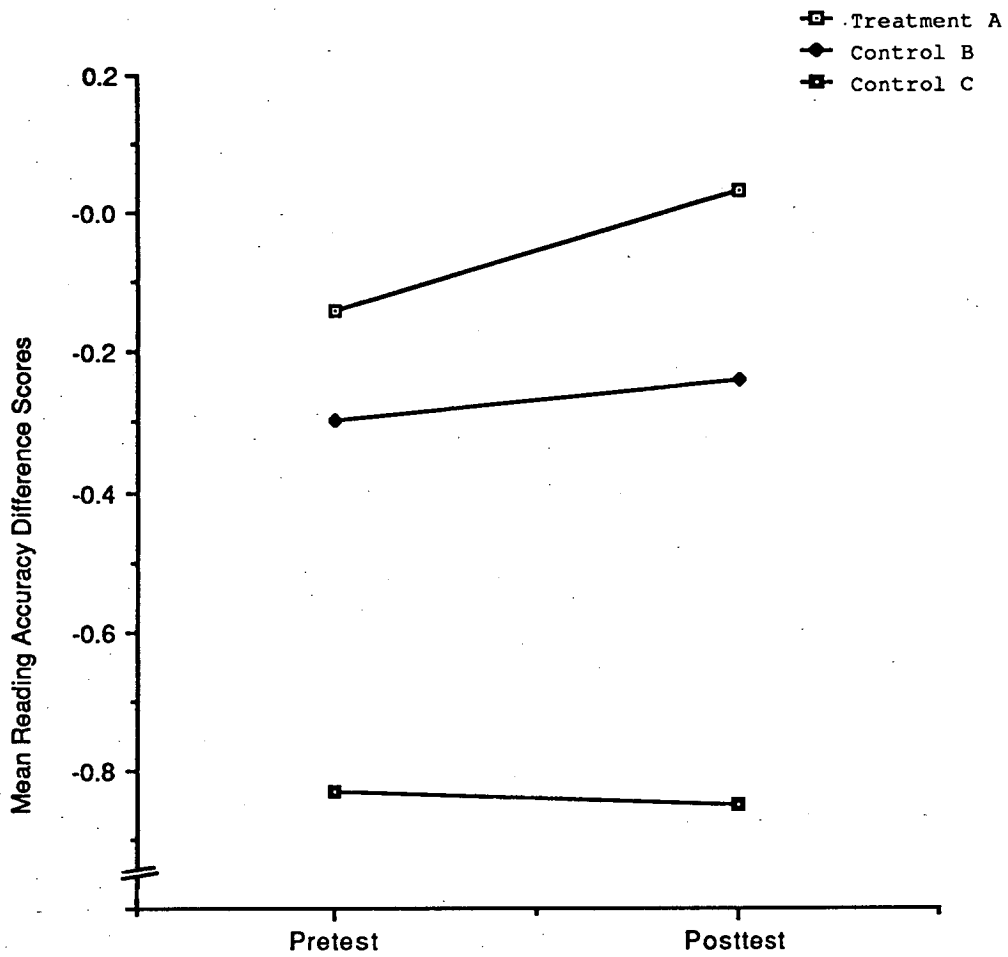


Figure 2: Mean Improvement in Pre-and Post-Test

Reading Accuracy Difference Scores

For Groups, A, B and C

By the use of Planned Comparison (F Test) the difference in Gain Scores in Reading Accuracy was significant, at the five percent level, between Social Skills Treatment Group A and Waiting List Control Group C, with

$$F = 14.31, \text{ df } 1,33, \text{ } p < 0.05$$

#### Reading Comprehension Gain Results

By the use of Planned Comparison (F Test) the groups were compared for gains in Reading Comprehension.

The means of Gain Scores presented in Table 4, are Social Skills Training Group A, 0.13; Attention Placebo Control Group B, 0.15; and Waiting List Control Group C, 0.01.

Figure 3 shows the mean improvement in pre-and post-test Reading Comprehension Difference Scores (Reading Comprehension Age minus Chronological Age) for Groups A,B and C.

By the use of Planned Comparison (F Test) the difference in Gain Scores in Reading Comprehension was not significant between Social Skills Treatment Group A and Attention Placebo Control Group B with,

$$F = .14, \text{ df } 1,33, \text{ } p > 0.05$$

By the use of Planned Comparison (F Test) the difference in gain scores in Reading Accuracy was significant, at the five percent level, between Social Skills Treatment Group A and Waiting List Control Group C, with

$$F = 7.62 \text{ df } 1,33 \text{ } p < 0.05$$

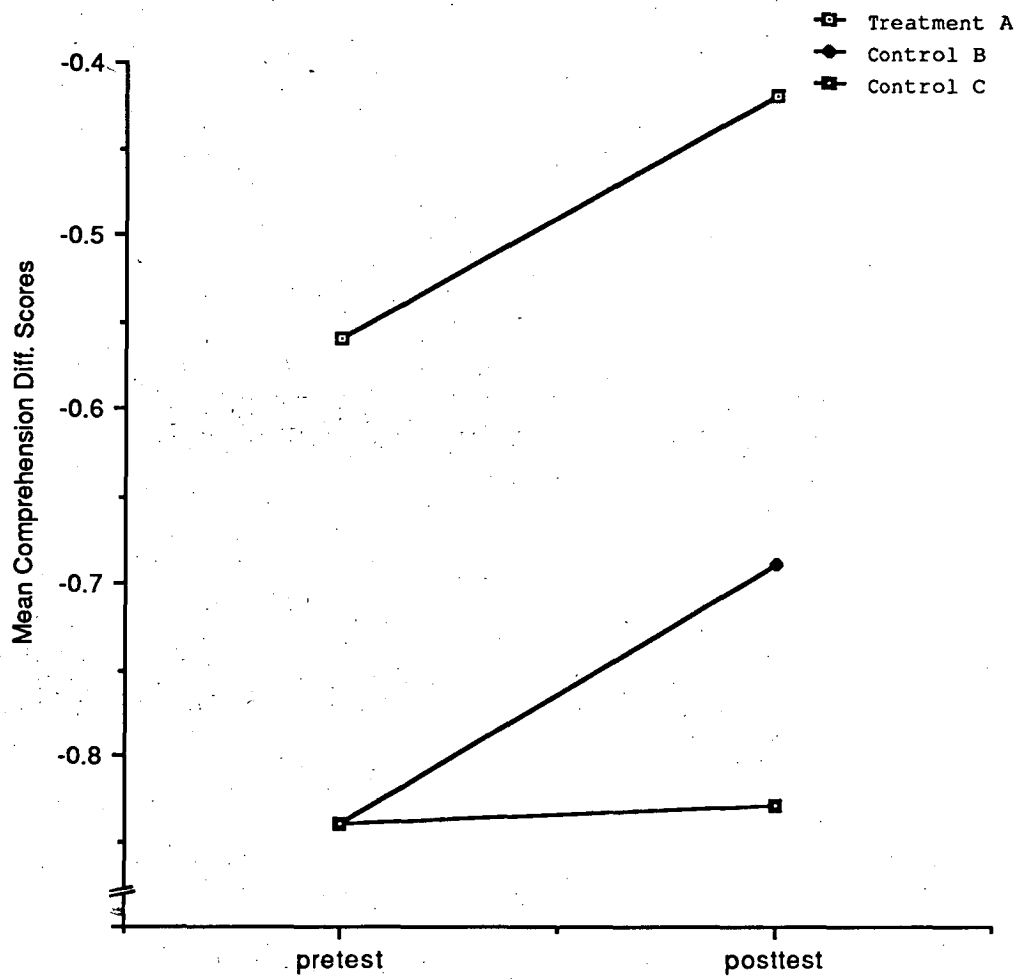


Figure 3: Mean Improvement pre- and post-test

Reading Comprehension

Difference Scores for Groups A,B and C

## 8. DISCUSSION

8.1 ANALYSIS OF RESULTS

8.2 EDUCATIONAL IMPLICATIONS

8.3 FUTURE RESEARCH DIRECTIONS

### 8.1. ANALYSIS OF RESULTS

The difference between the Highest Social Acceptance Group X and the Lowest Social Acceptance Group Y was significant in regard to Reading Comprehension and Accuracy in the direction of the less accepted children scoring the lower results, in both reading measures, than their more popular classmates.

This result is in agreement with previous research, as summarised in the introductory sections, that a link exists between poor social acceptance and underachievement. Other results have indicated that perceived academic incompetence negatively affected an underachieving child's level of social acceptance (Gottlieb, Semmel & Beldman 1978). Bryan (1976) concluded that there was a reliability of rejection ratings over time, and across classrooms. Most researchers are not clear about the causal relationship between the two variables (e.g. Chazan 1963), and it was beyond the scope of this present study to investigate causal directions. This conclusion was reached by other researchers in the area (Blechman, Tinsley, Carella & McEnroe 1985; Clifford 1984; McConaughy, 1986; McMichael, 1980). As an explanation Rushton 1966) stated that well adjusted children are not distracted to the same degree about their personal problems as are poorly adjusted children.

This present finding is not central to the main predictions of this study but the comparison was completed to consolidate a link established by the literature review. The remainder of the discussion will concentrate on the main study on the effects of social skills training on the peer social acceptance and underachievement, in primary school children.

Social Skills Treatment Group A made the greatest mean gain in Social Acceptance scores, of the three groups. The difference between this group and the Attention Placebo Control Group just failed to reach significance but the trend was in the predicted direction. It was not unexpected that the Attention Placebo Group would make considerable gains in that their expectations for improvement in their social behaviour was matched with Group A, and expectation is a powerful factor in improvement (Rosenthal & Jacobson 1968; Rosenthal 1966). In addition, although the Attention Placebo group sessions were not peer-oriented, they involved what could be loosely termed "play therapy" in that opportunities were provided for children to practise co-operation, sharing and so on. Some researchers have concluded that play therapy can improve the social skills of participants, but, as noted earlier, the research is equivocal (Cox 1953; Thombs & Muro, 1973).

Treatment Group A made significantly greater gain than the Waiting List Control Group C whose scores were virtually unchanged.

In summary, it is probable that Social Skills Training will enhance a relatively socially isolated child's social acceptance by peers, at least in the short-term. This finding supports previous research findings, such as the Gottman et al. (1976) study where subjects were individually coached in social skill areas, and a study by Oden & Asher (1977) where sociometric assessment indicated improvement in peer acceptance for poorly accepted subjects. Other

supporting studies include La Greca and Santogrossi, (1980); Ross et al., (1971); and Walker and Hops (1973).

Follow-up testing, after intervals of two months and four months would establish the stability, or otherwise, of the improvement over time. It is conceded that expectation effect and experimenter attention may account for some of the improvement. Also, it must be noted that the pre-test mean of Social Acceptance scores for Group A was considerably higher than for the other groups as this variable was least well matched among the groups. This discrepancy may affect the validity of the improvement that Group A made on all other variables (Ross 1980).

Treatment Group A also made significant gains in Reading Achievement. In the Reading Accuracy measure, Group A improved significantly in comparison to both Groups B and C. although Group B results indicated a trend towards improvement.

In the Reading Comprehension measure Group A made a significant gain when compared to the Waiting List Group C, but was not significantly different to Group B where the improvement was similar to Group A. This is a confusing result, but again, may indicate the powerful effect of expectation of improvement, and the special attention effects, Rosenthal & Jacobson 1968; Rosenthal, 1966), and the beneficial effects of play therapy in providing opportunities for children to interact.

However, on the basis of these results it is reasonable to argue that Social Skills Training can significantly improve a low accepted child's achievement, as measured in Reading, in addition to enhancing his/her peer social acceptance.



The Social Skills Training Manual used was considered successful. The children generally reacted enthusiastically to the range of techniques; no motivational problems were observed. Many children expressed disappointment when the programme finished.

The sociometric measure used was simple to administer and score. As it was beyond the scope of the present study to use behavioural observation techniques (for the reasons stated in the Method) this sociometric measure was considered adequate, and could easily be adapted for more general use in school. By not using observational techniques, it was not possible to conclude which skill areas showed greatest improvement. However, the sociometric assessment did allow for the experimenter to assess the effect of training on social acceptance generally and on achievement.

## 8.2 EDUCATIONAL IMPLICATIONS

Firstly, it is possible to conclude that it is feasible for an outside trainer to effectively gain the trust of a group of poorly socially accepted children, and to enhance both their peer acceptance and achievement levels, in a relatively short term project.

Although educators are generally aware of the importance of emotional factors in learning, educational programmes are too frequently based on the assumption that a child has a fixed capacity that can be identified, isolated and measured. Obviously, variations in achievement can be attributed to variations in ability, but academic achievement can be functionally limited by emotional maladjustment. This maladjustment intervenes between ability and performance.

It would be beneficial for educators to identify social isolates, and this could be accomplished by using a sociometric rating measure as employed in this study. If this identification occurred early in the school year, intervention could be implemented before the child's poor acceptance became reinforced, and the child's resulting coping mechanisms resistant to change. Outside counsellors could be employed, existing guidance officers and social workers could be redeployed or teachers themselves could be trained in Skills Training Procedures.

It would be important that such training should be conducted in ways that do not stigmatize children, for example, in the school situation it would be better for nonisolated children to participate in training with isolates (Oden and Asher 1977).

At present, in Tasmanian Schools, there is an active Remedial Reading Scheme. The results thereby obtained could be enhanced if the child's emotional adjustment was provided for, similarly. The short term consequences of such intervention may include greater academic improvement than is achieved by present methods; the enhancement of peer acceptance for isolates so that time spent at school will be judged as a positive socialization experience for that individual; and finally may result in more socially cohesive class units.

Such intervention may prevent the negative long term consequences of social isolation in later life which include delinquency and more serious psychopathology such as alcoholism, sexual deviation, excessive rage and aggression, depression and so on, as mentioned earlier (Cowen, Pederson, Babigian, Izzo & Trost 1973).

### 8.3 FUTURE RESEARCH DIRECTIONS

Future studies might examine coaching procedures that would be appropriate for younger children. Early intervention would be likely to lessen the likelihood of children becoming socially isolated or rejected at a later time in their development.

Future intervention research should include long term follow-up sociometric measurement. It may be that children at risk will require repeated training sessions to reinforce their learning of skills.

Future studies may need to modify Social Skills Training Packages for use with boys and girls separately. What may aid a girl's acceptance, such as attractiveness and good grooming, may differ from the skills that may improve a boy's acceptance, such as effective sporting skills. Educators need to consider whether to encourage, or attempt to change these sexist differences.

Finally, it is suggested that a more complex, multivariate design be devised in an attempt to ascertain the causal interaction between the major variables, social isolation and achievement, and this may involve longitudinal research.

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## APPENDICES

## APPENDIX A

### SOCIAL ACCEPTANCES SCALES

APPENDIX A.1.NAMECLASS 3/4How much do you like to work with this person at school?

	I Like Very Much	A Little:	O.K.	Not Much	Not At All
Soren A.					
Paul B.					
Angela B.					
Taraaid C.					
Olivia D.					
Andrea D.					
Jamie E.					
Rebecca G.					
Lisa G.					
Matthew H.					
Mark L.					
Courtney Mc.					
John N.					
Matthew P.					
Jeremy R.					
Alexandra S.					
Holger S.					
Aaron T.					
Nicholas T.					
Kate W.					
Tanya W.					
Grace W.					
Craig W.					
Matthew C.					
Charles C.					
Deborah L.					
Kate M.					
Emmanuel V.					

APPENDIX A.2.NAMECLASS 3/4How much do you like to play with this person at school?

	I Like Very Much:	A Little:	O.K.	Not Much	Not At All
Soren A.					
Paul B.					
Angela B.					
Taraaid C.					
Olivia D.					
Andrea D.					
Jamie E.					
Rebecca G.					
Lisa G.					
Matthew H.					
Mark L.					
Courtney Mc.					
John N.					
Matthew P.					
Jeremy R.					
Alexandra S.					
Holger S.					
Aaron T.					
Nicholas T.					
Kate W.					
Tanya W.					
Grace W.					
Craig W.					
Matthew C.					
Charles C.					
Deborah L.					
Kate M.					
Emmanuel V.					

**APPENDIX B**

COPY OF NEALE ANALYSIS OF READING ABILITY, FORM A



1 KITTEN (26)	Mis*	Sub	Ref	Add	Oms	Rev
A						
black						
cat						
came						
to						
my						
house.						
She						
put						
her						
kitten						
by						
the						
door.						
Then						

- Questions 1. What came to the little boy's/girl's house?  
2. Where did the black cat leave her kitten?

2 TOM (49)	Mis	Sub	Ref	Add	Oms	Rev
Tom						
stopped						
on						
his way						
to school.						
The milkman's						
horse had						
wandered						
in the fog.						
The horse						
and cart						
blocked						
the centre						
of the road.						
Traffic						
was coming.						
There was						

- Questions 1. Where was Tom going?  
2. What did he see on the way?  
3. What had happened to the horse?  
4. What kind of day was it?  
Or What was the weather like?

3 CIRCUS (74)	Mis	Sub	Ref	Add	Oms	Rev
The lions'						
final						
act was						
in progress.						
Jack stood						
waiting to						
clear the ring.						
Tonight the						
thunder						
outside the						
circus tent						
had made the						
lions restless.						
Suddenly Tess,						
the lion trainer,						
stumbled.						
Her whip fell.						
The youngest						
lion sprang						

1 continued	Mis	Sub	Ref	Add	Oms	Rev
she						
went						
away.						
Now						
I						
have						
her						
baby						
for						
a						
pet.						
Errors						
Time						
Comprehension						

3. What did the black cat do then?  
4. What did the little boy/girl do with the kitten?

2 continued	Mis	Sub	Ref	Add	Oms	Rev
no						
time						
to call						
the milkman.						
Quickly						
Tom						
led						
the horse						
to safety						
just as the						
frightened						
milkman						
returned.						
Errors						
Time						
Comprehension						

5. Why was it dangerous for the horse and cart to stay there?  
6. Why didn't Tom call the milkman?  
7. What did Tom do?  
8. How did the milkman feel as he came running back?

3 continued	Mis	Sub	Ref	Add	Oms	Rev
Jack leaped						
inside the cage,						
cracking the						
whip with						
great skill.						
His prompt						
action						
enabled						
Tess to regain						
control quickly.						
During						
that brief						
adventure,						
however, Jack						
had decided						
upon his						
future work.						
Errors						



DRAGON (91)	Mis	Sub	Ref	Add	Oms	Rev
he fearful						
earing of the						
ragon guided						
he Knight to						
he monster's						
territory. As the						
ntruder crossed						
he dreaded						
marshes, the						
ragon charged						
uriously,						
hipping its						
normous tail						
round the legs						
f the Knight's						
teed. Horse and						
ider collapsed.						
he Knight now						
ealised that he						
ust attack when						
he creature						
as off-guard.						

- Questions
1. How did the Knight know exactly where to find the dragon?  
Or What guided the Knight to the dragon?
  2. What kind of land did the Knight have to cross over?
  3. How did the dragon knock the Knight down?
  4. What did the Knight realise would be a good moment to attack the dragon?

SUBMARINE (118)	Mis	Sub	Ref	Add	Oms	Rev
The stricken						
ubmarine						
ay at a depth						
f approximately						
wenty						
athoms						
Although it was						
ommon						
n knowledge that						
he treacherous						
urrents of the						
rea would						
ake rescue						
perations						
ifficult, the						
rew remained						
isciplined and						
onfident. Mean-						
hile, outside						
heir prison,						
diver with						
echnical						
quipment for						
heir release						
as in peril.						
is life-line						
ad become						
ntangled						
round a						
rojection on						
n adjacent						

4 continued	Mis	Sub	Ref	Add	Oms	Rev
He crouched						
as though						
wounded.						
The monster,						
accustomed to						
speedy victory,						
prepared to seize						
its prey. Then						
the Knight struck						
powerfully						
beneath the						
beast's out-						
stretched wing.						
A despairing						
groan told the						
villagers that						
they would be						
troubled no more.						
Errors						
Time						
Comprehension						

5. What did the Knight pretend?
6. Why did the dragon think that its very first blow could kill the Knight?
7. What part of the dragon's body did the Knight strike?
8. Why would the villagers be pleased at the defeat of the dragon?

5 continued	Mis	Sub	Ref	Add	Oms	Rev
wreckage.						
Experience						
warned him						
against his						
first impulse						
to dislodge the						
line by force.						
Patiently						
he turned						
and twisted.						
At last his						
calmness and						
persistence						
were rewarded.						
Triumphantly he						
detached the						
final loop from						
the obstruction.						
Then fatigued						
but undaunted by						
this unpleasant						
accident,						
he proceeded						
to provide an						
escape exit for						
the submarine's						
captives.						
Errors						
Time						
Comprehension						

6 EVEREST (139)	Mis	Sub	Ref	Add	Oms	Rev
Realising the						
necessity for						
conserving						
the strength of						
the team, the						
leader decided						
to pitch an						
intermediate						
camp. The						
initial						
enthusiasm and						
anticipation						
of attaining						
the final camp						
had been						
subdued						
by the recent						
mishap						
in which one						
member had						
fallen into a						
crevasse.						
Although the						
rescue had been						
accomplished						
magnificently,						
it was obvious						
that the						
incident						
had hampered						
the original						
programme. The						
men accepted						
the leader's						
decision						
with relief.						
The tedious						

6 continued	Mis	Sub	Ref	Add	Oms	Rev
crawl to the						
plateau against						
incessant winds						
of varying						
violence had						
challenged						
their endurance						
to the limit.						
Every step at						
this height						
required						
will-power.						
Immediately						
ahead lay an						
unforeseen rise						
from which,						
by great						
misfortune, all						
the tracks of the						
advance party						
had disappeared.						
Rest was						
essential if						
the men were to						
withstand the						
arduous						
conditions in						
the concluding						
stages of the						
assault						
upon this						
unconquered						
peak.						

Errors

Time

Comprehension

- Questions
1. What did the leader realise his men needed?
  2. What did the leader decide to do?
  3. How did the men feel about the leader's decision to stop climbing? Were they pleased or annoyed?
  4. What incident had hindered their progress?

5. What had made them slacken their pace of climbing to a crawl?  
Or What made them go so very slowly?
6. What lay just ahead of them?
7. What piece of bad luck had the team noticed?
8. Why would it be very exciting to reach the peak?

## SUPPLEMENTARY DIAGNOSTIC TEST 1.

a	c	o	e		
f	t	k	h	l	
p	d	b	g	q	y
m	w	n	r	u	v

What are the names and sounds of these letters?

s	z	x	i	j					
A	H	K	F	E	L	I	T	X	
C	G	O	Q	P	R	D	B	J	
M	N	U	V	Y	W	S	Z		

## SUPPLEMENTARY DIAGNOSTIC TEST 2.

1. tap	man
2. beg	red
3. tin	lip
4. fold	bolt
5. but	mug
6. show	star
7. every	bridge
8. girl	grid

Auditory discrimination through simple spelling.

rat
pet
ink
cold
hutch
sport
chicken
grumble

## SUPPLEMENTARY DIAGNOSTIC TEST 3.

1. c- old	d- ear
2. m- ouse	l- augh
3. ch- ill	br- ake
4. pic- nic	thr- oat

Blending and recognition of syllables.

l- ock	t- ask
s- ight	b- urnt
th- ief	gr- owl
fly- ing	str- ong

## APPENDIX C

RESULTS OF RAW SCORES, DIFFERENCE SCORES AND GAIN SCORES FOR  
GROUPS A, B and C

## APPENDIX C

1. Raw pre and post-test scores for each subject in Groups A, B and C in Social Acceptance, Reading Accuracy and Comprehension.
2. Difference Scores for each subject in Groups A, B and C in Social Acceptance, Reading Accuracy and Comprehension.
3. Gain Scores in Social Acceptance, Reading Accuracy and Comprehension for each subject in Groups A, B and C.

TABLE C.1.

## TREATMENT GROUP A

SUBJECT	C.A.	SOCIAL ACCEPTANCE SCORE		READING ACCURACY AGE		READING COMPREHENSION AGE	
		PRE-TEST	POST-TEST	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST
1	9.2	212	213	8.7	9.2	8.9	9.1
2	9.2	178	181	9.1	9.3	8.9	9.3
3	9.2	202	205	10.1	11.2	10.0	10.3
4	10.2	200	200	9.8	9.9	10.4	10.8
5	9.9	142	145	11.2	12.8	9.6	10.0
6	9.9	124	127	9.8	10.0	9.9	10.1
7	10.6	160	161	10.4	10.5	9.9	10.4
8	10.2	120	119	10.0	10.2	9.8	10.2
9	10.5	98	105	9.5	9.1	9.5	9.9
10	10.8	124	126	10.8	11.1	9.2	9.6
11	11.6	132	132	10.3	9.2	9.1	9.3
12	11.7	122	126	11.7	12.2	11.2	11.5
	M=10.26 S.D.= 0.85	M=151.17 S.D.=38.19	M=153.33 S.D.= 37.49	M=10.12 S.D.= 0.85	M=10.39 S.D.= 1.22	M=9.7 S.D.=0.66	M=10.04 S.D.= 0.71

TABLE C.2.

## ATTENTION PLACEBO GROUP B

SUBJECT	C.A.	SOCIAL ACCEPTANCE SCORE		READING ACCURACY AGE		READING COMPREHENSION AGE	
		PRE-TEST	POST-TEST	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST
13	8.7	190	190	9.5	9.8	9.0	9.3
14	8.5	190	191	8.5	8.8	9.1	9.4
15	8.7	90	94	8.4	8.8	8.2	8.2
16	9.8	186	185	9.2	9.6	8.9	9.2
17	10.3	159	159	12.1	12.2	10.0	10.2
18	10.3	81	83	11.6	11.9	10.2	10.5
19	10.3	130	131	10.2	10.5	10.2	10.5
20	10.9	112	111	11.0	11.2	10.4	10.8
21	10.7	112	112	10.4	10.6	9.9	10.3
22	10.9	112	114	10.9	11.0	10.7	11.0
23	12.1	142	139	9.1	9.6	8.4	8.9
24	12.4	78	79	9.1	9.3	8.5	9.2
	M=10.3 S.D.= 1.25	M=131.18 S.D.= 68.39	M=132.33 S.D.= 40.73	M=10.0 S.D.= 1.22	M=10.27 S.D.= 1.14	M=9.46 S.D.=0.88	M=9.79 S.D.=0.87

TABLE C.3.

## WAITING LIST GROUP C

SUBJECT	C.A.	SOCIAL ACCEPTANCE SCORE		READING ACCURACY AGE		READING COMPREHENSION AGE	
		PRE-TEST	POST-TEST	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST
25	8.6	210	208	8.5	8.8	8.7	8.8
26	8.9	174	170	7.8	8.1	7.1	7.3
27	8.6	186	192	8.8	9.0	8.6	8.8
28	9.9	159	158	10.0	10.2	10.2	10.3
29	9.9	92	92	9.8	10.1	9.9	10.2
30	11.2	98	100	9.4	9.5	9.5	9.8
31	10.6	134	136	11.2	11.3	10.2	10.6
32	10.9	96	95	10.9	11.2	10.9	11.1
33	10.6	74	74	9.0	9.3	10.1	10.2
34	11.8	122	123	10.2	10.2	10.8	10.9
35	11.9	121	120	9.2	9.3	8.8	8.9
36	12.0	84	83	10.1	10.2	10.0	10.2
	M=10.41 S.D.= 3.16	M=129.17 S.D.= 44.05	M=129.25 S.D.=44.11	M=9.58 S.D.=0.99	M=9.76 S.D.=0.95	M=9.57 S.D.=1.09	M=9.75 S.D.=1.09

## TREATMENT GROUP A

SUBJECTS	DIFF. SCORE R.A.A. - C.A.		DIFF. SCORE R.C.A. - C.A.		GAIN SCORES POST-PRE		
	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST	S.A.	R.A.A.	R.C.A.
1	-0.5	-0.2	-0.3	-0.3	1	+0.3	0
2	-0.1	0	-0.3	-0.1	3	+0.1	+0.2
3	+0.9	+0.9	+0.8	+0.9	3	0	+0.1
4	-0.4	-0.1	+0.2	+0.4	0	+0.3	+0.2
5	+1.3	+1.4	-0.3	-0.1	3	+0.1	+0.2
6	-0.1	0	0	0	3	+0.1	0
7	-0.2	-0.1	-0.7	-0.4	1	+0.1	+0.3
8	-0.3	0	-0.5	-0.4	-1	+0.3	+0.1
9	-1.0	-0.6	-1.0	-0.8	7	+0.4	+0.2
10	0	+0.1	-1.6	-1.4	2	+0.1	+0.2
11	-1.3	-1.3	-2.5	-2.5	0	0	0
12	0	+0.3	-0.5	-0.4	4	+0.3	+0.1
	M=-0.14 S.D.= 0.71	M=+0.03 S.D.= 0.67	M=-0.56 S.D.= 0.85	M=-0.42 S.D.= 0.86	M=2.17 S.D.=2.16	M=0.18 S.D.=0.13	M=0.13 S.D.=0.09

READING ACCURACY AGE (R.A.A.)      READING COMPREHENSION AGE (R.C.A.)      SOCIAL ACCEPTANCE (S.A.)



TABLE C.5.

ATTENTION PLACEBO CONTROL GROUP B

SUBJECTS	DIFF SCORE R.A.A. - C.A.		DIFF. SCORE R.C.A. - C.A.		GAIN SCORES POST-PRE		
	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST	S.A.	R.A.A.	R.C.A.
13	+0.8	+0.9	+0.3	+0.3	0	+0.1	0
14	0	+0.1	+0.6	+0.6	1	+0.1	0
15	-0.3	-0.1	-0.5	-0.2	4	+0.2	+0.3
16	-0.6	-0.4	-0.9	-0.8	-1	+0.2	+0.1
17	+1.8	+1.7	-0.3	-0.3	0	-0.1	0
18	+1.3	+1.4	-0.1	0	2	+0.1	+0.1
19	-0.1	0	-0.1	0	1	+0.1	+0.1
20	+0.1	+0.1	-0.5	-0.3	-1	0	+0.2
21	-0.3	-0.3	-0.8	-0.6	0	0	+0.2
22	0	-0.1	-0.2	-0.1	2	-0.1	+0.1
23	-3.0	-2.9	-3.7	-3.4	-3	+0.1	+0.3
24	-3.3	-3.3	-3.9	-3.5	1	0	+0.4
	M=-0.3 S.D.= 1.5	M=-0.24 S.D.= 1.49	M=-0.84 S.D.= 1.44	M=-0.69 S.D.= 1.34	M=0.5 S.D.=1.78	M=0.06 S.D.=0.09	M=0.15 S.D.=0.13

READING ACCURACY AGE (R.A.A.)      READING COMPREHENSION AGE (R.C.A.)      SOCIAL ACCEPTANCE (S.A.)

WAITING LIST CONTROL GROUP C

SUBJECTS	DIFF. SCORE R.A.A. - C.A.		DIFF. SCORE R.C.A. - C.A.		GAIN SCORES POST-PRE		
	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST	S.A.	R.A.A.	R.C.A.
25	-0.1	0	+0.1	0	-2	+0.1	-0.1
26	-1.1	-1.0	-1.8	-1.8	-4	+0.1	0
27	+0.2	0	0	0	6	-0.2	0
28	+0.1	+0.1	+0.3	+0.2	-1	0	-0.1
29	-0.1	0	0	+0.1	0	+0.1	+0.1
30	-1.8	-1.9	-1.7	-1.6	2	-0.1	+0.1
31	+0.6	+0.5	-0.4	-0.2	2	-0.1	+0.2
32	0	+0.1	0	0	-1	+0.1	0
33	-1.6	-1.4	-0.5	-0.6	0	+0.2	-0.1
34	-1.6	-1.8	-1.0	-1.1	1	-0.2	-0.1
35	-2.7	-2.8	-3.1	-3.0	-1	-0.1	+0.1
36	-1.9	-2.0	-2.0	-2.0	-1	-0.1	0
	M=-0.83 S.D.= 1.07	M=-0.85 S.D.= 1.09	M=-0.84 S.D.= 1.08	M=0.83 S.D.=1.06	M=0.08 S.D.=2.5	M=-0.02 S.D.= 0.13	M=0.01 S.D.=0.1

READING ACCURACY AGE (R.A.A.)

READING COMPREHENSION AGE (R.C.A.)

SOCIAL ACCEPTANCE (S.A.)

## APPENDIX D

### HIGHEST AND LOWEST SOCIAL ACCEPTANCE GROUPS RAW SCORES

## APPENDIX D

Test raw scores of the Highest Social Acceptance Group X and the Lowest Social Acceptance Group Y (Composite Class 5/6/), in Reading Accuracy and Comprehension and Social Acceptance.

TABLE D.1.

## HIGHEST SOCIAL ACCEPTANCE GROUP X

SUBJECTS	CHRONOLOGICAL AGE	READING AGE		SOCIAL ACCEPTANCE SCORE
		ACCURACY	COMPREHENSION	
A	10.7	10.7	11.2	184
B	11.3	11.5	11.7	186
C	11.7	12.8	12.7	188
D	10.9	12.1	11.2	192
E	11.3	13.0	12.4	192
F	12.2	12.5	12.0	192
G	11.7	11.5	12.1	204
H	11.7	11.8	12.2	210
	M=11.44 S.D.= 0.49	M=11.99 S.D.=0.66	M=11.94 S.D.= 0.54	M=193.5 S.D.= 8.99

TABLE D.2.

## LOWEST SOCIAL ACCEPTANCE GROUP Y

SUBJECTS	CHRONOLOGICAL AGE	READING AGE		SOCIAL ACCEPTANCE SCORE
		ACCURACY	COMPREHENSION	
I	11.7	9.0	10.1	74
J	12.4	9.1	8.6	78
K	10.9	12.1	8.8	96
L	11.6	11.6	11.9	98
M	10.8	11.5	9.2	98
N	10.5	9.5	9.5	112
O	10.9	11.0	10.8	112
P	11.8	10.2	10.8	122
	M=11.33	M=10.5	M= 9.96	M=98.75
	S.D.= 0.64	S.D.= 1.21	S.D.= 1.14	S.D.=16.66

## APPENDIX D

Difference scores (i.e. Reading Accuracy Age minus Chronological Age and Reading Comprehension Age minus Chronological Age for Groups X and Y (Composite Class 5/6).

TABLE D.3.

## HIGHEST SOCIAL ACCEPTANCE GROUP X

SUBJECT	READING ACCURACY AGE CHRONOLOGICAL AGE	READING COMPREHENSION AGE CHRONOLOGICAL AGE
A	0	+0.5
B	+0.2	+0.4
C	+1.1	+1.0
D	+1.2	+0.3
E	+1.7	+1.1
F	+0.3	-0.2
G	-0.2	+0.4
H	+0.1	+0.5
	M=+0.55 S.D.= 0.69	M=+0.5 S.D.= 0.41

TABLE D.4.

## LOWEST SOCIAL ACCEPTANCE GROUP Y

SUBJECT	READING ACCURACY AGE CHRONOLOGICAL AGE	READING COMPREHENSION AGE CHRONOLOGICAL AGE
I	-2.7	-1.6
J	-3.3	-3.8
K	+1.2	-2.1
L	0	+0.3
M	+0.7	-1.6
N	-1.0	-1.0
O	-0.1	-0.1
P	-1.6	-1.0
	M=-0.85	M=-1.36
	S.D.= 1.59	S.D.= 1.26

## APPENDIX E

### SAMPLES FROM SOCIAL SKILLS TRAINING SESSIONS



APPENDIX E.SAMPLES FROM THE SOCIAL SKILLS TRAINING SESSIONSWeek 1: General Introduction, Smiling and Greeting SkillsI. Rationale for the Group and Introduction to Group Members

- a) Each leader introduces her/himself to the group, using first name only, and then the children are asked to do the same.
- b) The group leaders explain that the purpose of the group is to learn how to make friends with other children and to learn how to get along better with others. It is stressed that the group meetings will also be fun. The general procedures for the group are discussed (i.e. viewing a film, discussions, practising skills, video-taping and refreshments). All questions posed by the children are answered.
- c) Introductions are reviewed so that everyone knows each person's name.

II. Smiling and Having Fun

- a) The leaders explain to the group that smiling is important because it shows that you are having a good time and that you like the people who you are with. Smiling at others during work and play is stressed.

- b) Modelling tape of smiling is shown. After the tape presentation the children are asked the following questions:

What were the boys and girls doing on the tape?

Why is it important to smile?

What are some times when you can smile with other boys and girls?

What should you do if someone you know smiles at you?

- c) Behavioural Rehearsal. Each child practises smiling at another group member. The role-plays are video-taped and feedback is provided by the group leaders (e.g. "You have a really nice smile," or "I really like the way you smile."). This is an easy skill and there should be no problems with the practice.

### III. Greeting Skills: Smile, say "hi" and use the person's name.

- a) Discuss the importance of greeting others with the group members. (WHY do they think it is important to greet others?). Stress that greetings are a sign of friendship.

- b) Modelling tape of Greeting skills. After the tape presentation, the following questions are asked:

What were the boys and girls doing on the tape?

How should you greet another boy or girl?

When are some times that you might greet other boys/girls? (e.g. when you arrive at school in the morning).

When might you greet others in school? at home?

What might happen if you did not greet another person?

What might happen if another boy/girl greets you and you do not say "hi" back?

- c) Behavioural Rehearsal. Children are paired off and practise greeting and returning greetings. Each child should practise one situation where he/she does not know the other person (i.e. so they must ask the person what their name is) and one situation where they are greeting a friend or acquaintance. The role-plays are videotaped and then played back to the children. Group leaders provide specific feedback to the children (e.g. "You did a good job of smiling and saying "hi" but you forgot to ask his name. Why don't you try that again." "Good! That time you remembered to ask John's name.") The group members are also encouraged to give feedback to the other children at the completion of a role-play or during the videotape play-back.

- IV. Homework Assignment. Homework sheets and folders are distributed to each child in the group. The assignment is read-over with the children, and then one or two children are asked to re-explain the assignment to ensure that the children comprehend the task. Smiling and greeting skills are reviewed. (When should you smile at others? How do you greet other children? When do you greet other boys and girls?) The children should discuss how they will

complete the assignment (e.g. who will they smile at or greet? When are some times that they might be likely to greet others?). The leaders should stress the importance of completing the homework sheets and of bringing them back to the next group meeting.

SOCIAL SKILLS TRAINING MANUALWeek 3: Inviting and Sharing Skills

- I. Homework Review: The previous week's assignment on joining and conversation skills is discussed. Children are praised for bringing in the completed homework sheets. Children are praised for their efforts at joining in with and talking to other children. The joining and conversation skills are reviewed. (Joining means smiling, saying "hi", using the other person's name and asking nicely to join. Talking means asking questions, answering questions, talking about yourself, smiling, using the other person's name and looking at the other person.) The children review "how" to use these skills and "when" to use them. Each child should be asked to give five questions that could be used in a conversation with other boys or girls.
- II. Inviting Skills:
  - a) Explain to the group that it is important to invite others to do things with you. Inviting is a sign of friendship.
  - b) Modelling tape of inviting skills is shown. After the tape presentation, the children are asked the following questions:

What were the boys and girls doing on the tape?

How do you invite someone to do something with you?

When can you invite another to do something?

What happens if the boy/girl says "no?"

What should you do if someone invites you to do something?

What should you do if someone invites you, but you are already busy?

What would another child think if you looked away or ignored him/her when He/she invited you?

- c) Behavioural Rehearsal. Each child practises inviting another group member to join him/her at least twice. Each child also practises how to respond when the other child says "no". (The children should be encouraged to either ask for another day or to say good-bye politely.) Finally, each child gets one turn refusing an invitation because they are already busy. All role-plays are taped and then played back to the children. Children are given specific feedback when the videotape is replayed, and poor performances are repeated until the children display the inviting skills. The following behaviours are stressed and praised: smiling, looking at the other child, greeting the other child, using his/her name, asking nicely to join, giving a reason for not accepting an invitation and suggesting an alternative time/day, and not getting mad when refused (offer an alternative time or leave quietly).

III. Co-Operation Skills: Sharing materials, taking turns using materials, taking turns going first.

a) Discuss the importance of co-operation during work and play activities. Ask the children how they feel about others who do not share, co-operate or take turns.

b) Modelling tape of co-operation skills is shown. The questions are:

What were the boys and girls doing on the tape?

What does sharing mean? How do you share?

When can you share with others?

What does taking turns mean?

When can you take turns? Give some examples.

What should you do when there are not enough (cookies, frizbees, crayons etc.) for everyone to use?

What happens when boys/girls do not share?

What happens when boys/girls do not take turns?

What can you do if other children refuse to share or take turns? (e.g. do not fight or argue -

suggest sharing or taking turns. If this does not work, walk away and play with others or by yourself.)

c) Behavioural Rehearsal. The group members are instructed to play a group game (e.g. Kerplunk or Pick-Up-Stix) and each child has one turn suggesting to the group members that they should decide fairly who will go first (e.g. draw sticks, etc.). This is videotaped and feedback on performance is provided during the tape replay.

Children are also given materials or food (cookies) and one child must decide how to distribute the materials or food. Each child has a turn at this.

Again, the sequences are videotaped and feedback and praise for accurate performance are provided by group leaders and members.

- IV. Review of Inviting and Co-operation Skills: The children are asked to reiterate the components of inviting and co-operation skills. Also, appropriate situations for using inviting and co-operation skills are discussed (e.g. invite others to play during recess, or to watch T.V. after school; share materials during class projects, take turns when playing games during recess, etc.). The key questions are: What does inviting mean? When can you invite others to join you? What does co-operation mean? How do you do this? When can you co-operate with other boys/girls?

- V. Homework Assignment. Children are provided with homework sheets and the details of the assignment are discussed. One or two children should be asked to explain the homework assignment to the other groups members to ensure that the children comprehend the instructions. The children should discuss what they are to do and with whom they will practise the skills.



## APPENDIX F

### SAMPLES FROM ATTENTION PLACEBO GROUP SESSIONS

APPENDIX F.SAMPLES FROM THE ATTENTION PLACEBO SESSIONSWeek 1: General Introduction

- I. Rationale for the Group and Introduction to Group Members
  - a) Each leader introduces her/himself, using first name only, and asks the children to do the same.
  - b) The group leaders explain that the purpose of the group is to learn how to make friends with other children and to get along better with others. Another reason for the group is for everyone to have fun. The general procedure for the group is discussed (i.e. watching a film, discussions, videotaping, games and refreshments) and all questions are answered.
  - c) Introductions are reviewed so that everyone knows each person's name.
- II. Control Film. A short five minute segment of the "Gong Show" (ABC Network) is shown.
  - a) Film discussion. Children are asked questions pertaining to the content of the film. Questions included:
    - What was happening during the show?
    - Have you ever watched this program before?
    - What did you like best?
    - What didn't you like?
    - What television programs do you like to watch?

- c) Videotape control procedure. The children are introduced to the videotape equipment and are told that they will be able to "see themselves" on tape each week. Each child takes a turn at introducing him/herself in front of the camera and then the tape is replayed. Group leaders should make positive comments about the children's performances (e.g. "You did a nice job!" etc.). Comments should either be non-specific, or else not related to social skills components. Each child is given at least one turn at being taped.
- d) Group Participation. The children and group leaders engage in group game-activities. These activities include: card playing (Old Maid, Fish), card tricks, Pick-Up-Stix, Kerplunk and Aggravation. The children are videotaped during game playing and are shown the videotape afterwards.

III. Homework Assignment. The children are provided with homework sheets and the details of the homework are discussed. Children are asked to bring the completed homework sheet to the next group meeting. One or two children are asked to explain the homework assignment to the group members to ensure that the children comprehend the instructions.

### Weeks 2-4: General Format for the Group

- I. Homework Review. The previous week's assignment is discussed. Children are praised for bringing in the homework sheets. The children and group leaders discuss the past week's activities (e.g. what the children did over the weekend, what games they played, which television programs they viewed etc.).
- II. Control Films. Short, five minute segments of the circus or of the "Gong Show" are viewed by the group.
  - a) Film is shown.
  - b) Film is discussed. Children are asked questions pertaining to the content of the film. Examples are:
 

Have you ever watched this show before?

How did you like it?

What was going on in the show?

What shows do you like to watch on T.V.?

Have you ever been to the circus before?

How did you like it?
  - c) Video Exposure. The children play pretend games (e.g. Charades, mimic commercials or new interviews) with each other which are videotaped. The tapes are played back and the children are praised for their performance. The children also engage in activities which involve group-participation (e.g. card games, Pick-Up-Stix, Kerplunk, Aggravation, etc.) and are videotaped during game-playing. Children are shown the videotapes after

the games are completed.

- III. Homework Assignment. The children are provided with homework sheets and the details of the assignment are discussed. One or two children should be asked to explain the homework assignment to the group members to ensure that the children comprehend the instructions.